

THE IBIS.

EIGHTH SERIES.

No. XV. JULY 1904.

XXIV.—*On a Collection of Birds from the District of Deelfontein in Cape Colony.* By R. BOWDLER SHARPE, LL.D. &c.—Part II.*

(Plate VIII.)

IN this paper I finish the account of the very interesting collection of birds presented to the British Museum by Colonel Sloggett, C.M.G.

The field-notes supplied to me by our young collectors Seimund and Grant, of the Imperial Yeomanry, cannot fail to be of interest, while the facts concerning the geographical distribution of certain South-African species brought to light by a study of this large collection of birds are really important. Figures are given (Plate VIII.) of the two species of Penduline Tits of South Africa.

53. RIPARIA PALUDICOLA.

Cotile paludicola (V.); Sharpe, ed. Layard, pp. 361, 840 (1875-84); id. Cat. B. x. p. 102 (1885); id. & Wyatt, Monogr. Hirund. i. p. 73, pl. xi. (1890); Stark, Faun. S. Afr., Birds, ii. p. 283 (1901).

Clivicola paludicola Sharpe, Hand-l. B. iii. p. 189 (1901).

* For Part I., see above, pp. 1-29.

Riparia paludicola Reichenow, Vög. Afrikas, ii. p. 396 (1903).

a. ♀ juv. Deelfontein, March 5, 1902.

b. ♀ juv. „ April 3, 1902.

c, d. ♀ ad. et juv. Deelfontein, Nov. 30, 1902.

The young bird killed in March is just completing its moult, but has some whitish edgings to the scapulars and innermost secondaries. The other young bird shot in April is also in full moult, and still has the old primaries. The throat and chest are much suffused with ashy.

54. PTYONOPROGNE FULIGULA.

Cotyle fuligula (Licht.); Sharpe, ed. Layard, pp. 360, 840 (1875-84).

Cotile fuligula Sharpe, Cat. B. x. p. 106 (1885); id. & Wyatt, Monogr. Hirund. i. p. 115, pl. xvii. (1887).

Biblis fuligula Sharpe & Wyatt, t. c. p. 130 (1894).

Ptyonoprogne fuligula Sharpe, Hand-l. B. iii. p. 190 (1901); Stark, Faun. S. Afr., Birds, ii. p. 286 (1901).

Riparia fuligula Reichenow, Vög. Afrikas, ii. p. 399 (1903).

a, b. ♂; c, d, e. ♀ ad. et imm. Deelfontein, March 3, 1902.

f. ♂; g, h. ♀ imm. Deelfontein, April 3, 14, 1902.

i. ♀ ad. Deelfontein, May 30, 1902.

k. ♀ ad. „ Oct. 24, 1902.

In some of the adult birds there are slight remains of dusky streaks on the throat and breast. The female procured in October is in worn plumage and appears to have been breeding. The examples killed in March are immature and have remains of rufous edgings on the feathers of the upper surface, although the moult is nearly completed (with the exception of the long primaries), shewing that these evidences of immaturity last a little time after the moult into the first mature plumage: the rufous edgings are still to be seen in April specimens, nor is that killed in May entirely devoid of them.

[Fairly common with us all the year round. The nests are

made of mud, lined with feathers; they are placed on the sides of houses and rocks.]

55. *HIRUNDO RUSTICA*.

Hirundo rustica Linn.; Sharpe, ed. Layard, pp. 362, 840 (1875-84); id. Cat. B. x. p. 128 (1885); id. Hand-l. B. iii. p. 192 (1901); id. & Wyatt, Monogr. Hirund. i. p. 213, pls. xxxvi.-xxxviii. (1893); Stark, Faun. S. Afr., Birds, ii. p. 289 (1901); Reichenow, Vög. Afrikas, ii. p. 407 (1903).

a, b, c, d. ♂ juv.; *e.* ♀ juv. Deelfontein, Nov. 13-16, 1902.

f. ♂ ad. Deelfontein, Dec. 13, 1902.

The young birds are all moulting into their first fully adult blue plumage, and four of them have still whitish foreheads. The December bird has completed most of the moult, but still retains the old quill-feathers.

[Very common in the winter months, the young arriving before the old birds, which follow about three weeks later.]

56. *HIRUNDO ALBIGULARIS*.

Hirundo albigularis Strickl.; Sharpe, ed. Layard, pp. 364, 840 (1875-84); id. Cat. B. x. p. 146 (1885); id. & Wyatt, Monogr. Hirund. i. p. 303, pl. lii. (1889); Stark, Faun. S. Afr., Birds, ii. p. 292 (1901); Sharpe, Hand-l. B. iii. p. 194 (1901); Reichenow, Vög. Afrikas, ii. p. 405 (1903).

a. ♀ ad. Deelfontein, Jan. 6, 1901.

b. ♀ ad. „ March 10, 1902.

c, d. ♂ ♀ ad. „ April 3, 1902.

e. ♂ ad. „ Oct. 31, 1902.

[Not so common as *H. cucullata*, and generally found round the farms. It breeds with us.]

57. *HIRUNDO DIMIDIATA*.

Hirundo dimidiata Sund.; Sharpe, ed. Layard, pp. 366, 841 (1875-84); id. Cat. B. x. p. 148 (1885); id. & Wyatt, Monogr. Hirund. i. p. 313, pl. lv. (1889); Stark, Faun. S. Afr., Birds, ii. p. 293 (1901); Sharpe, Hand-l. B. iii. p. 195 (1901); Reichenow, Vög. Afrikas, ii. p. 403 (1903).

a. ♀ ad. Deelfontein, April 3, 1902.

58. *HIRUNDO CUCULLATA*.

Hirundo cucullata Bodd.; Sharpe, ed. Layard, pp. 370, 841 (1875-84); id. Cat. B. x. p. 152 (1885); id. & Wyatt, Monogr. Hirund. i. p. 337, pl. lxii. (1886); Stark, Faun. S. Afr., Birds, ii. p. 298 (1901); Sharpe, Hand-l. B. iii. p. 190 (1901); Reichenow, Vög. Afrikas, ii. p. 412 (1903).

a. ♂ ad. Deelfontein, Jan. 8, 1901.

b, c. ♂ ♀ juv. Deelfontein, Jan. 20, 1901.

d-f. ♂ ad.; g, h. ♀ ad. Deelfontein, March 5, 1902.

i. ♂ ad. „ April 3, 1902.

k, l. ♂ ♀ ad. „ Oct. 24, 1902.

m, n. ♂ ad.; o-q. ♀ ad. „ Oct. 29, 1902.

r, s. ♂ ♀ ad. „ Nov. 29, 1902.

There seems to be scarcely any difference between the sexes. It is evident from the Deelfontein series that this Swallow, though a resident in South Africa, follows the same fashion as migrating Swallows do, and moults in the winter season, acquiring its full plumage before the breeding-time comes on. All the birds killed in October and November (the latter with nest and eggs) have nearly uniform rufous crowns, with scarcely a trace of black mottling. As the breeding-season progresses, however, we find the crown mottled with black bases to the feathers, which become much worn from January to March. Nestling birds have the head very thickly mottled with black, the inner secondaries broadly tipped with cinnamon-rufous, and the stripes on the under surface rather broader. One egg is pure white, peppered with faint reddish dots, very indistinct, but a little more plentiful at the larger end: axis 0.85 inch, diam. 0.6. Two others are pure white with a few faint reddish dots, chiefly near the large end; these dots are very few and scarcely perceptible: axis 0.75-0.8 inch, diam. 0.6.

[Very common and breeds with us. The nests have a long spout and are built in sheltered spots on the farms. The eggs are four in number. Both the parent birds sleep in the nest at night.]

59. *PETROCHELIDON SPILODERA*.

Petrochelidon spilodera (Sundev.); Sharpe, ed. Layard,

pp. 357, 839 (1875-84); id. Cat. B. x. p. 198 (1885); id. Hand-l. B. iii. p. 201 (1901); id. & Wyatt, op. cit. ii. p. 573, pl. ex. (1890); Stark, Faun. S. Afr., Birds, ii. p. 304 (1901); Sharpe, Hand-l. B. iii. p. 201 (1901); Reichenow, Vög. Afrikas, ii. p. 423 (1903).

a-e. ♂ ♀ ad. Deelfontein, Oct. 31, 1902.

[These birds are not common, and do not remain all the year with us.]

60. BRADYORNIS INFUSCATUS.

Saxicola infuscata Smith; Sharpe, ed. Layard, p. 402 (1878).

Bradyornis infuscatus (Smith); Sharpe, ed. Layard, p. 844 (1875-84); Seebohm, Cat. B. v. p. 406 (1881); [*mariguensis*] Sharpe, Bull. B. O. C. xii. p. 2; id. Hand-l. B. iii. p. 208 (1901); Stark, Faun. S. Afr., Birds, ii. p. 237 (1901); Reichenow, Vög. Afrikas, ii. p. 434 (1903).

a. ♂ juv. Deelfontein, Jan. 20, 1901. Iris dark hazel.

b. ♂ ad. „ May 4, 1902.

c. ♀ ad. „ Aug. 25, 1902.

d, e. ♂ ♀ ad. „ Sept. 23, 1902.

f. ♂ ad. „ Nov. 23, 1902.

In the 'Hand-list' I omitted to record *Bradyornis benguellensis* of Souza, Journ. Lisb. 1886, p. 160. The Museum possesses a specimen of this bird presented by Professor Barboza du Bocage, and from the light margins to the greater wing-coverts and outer tail-feathers it is evidently a close ally of *B. infuscatus*, and not of *B. murinus*, with which Prof. Souza compared it. It is a little more reddish brown above and has a whiter throat and abdomen, but there is not very much difference between the two forms. A specimen from Benguela obtained by Monteiro is very much paler than more southern birds, and is more ashy on the head and chest.

61. STENOSTIRA SCITA.

Stenostira scita (Vicill.); Sharpe, ed. Layard, p. 352 (1875-84); id. Cat. B. iv. p. 267 (1879); id. Hand-l. B. iii. p. 240 (1901); Reichenow, Vög. Afrikas, ii. p. 493 (1903).

Apalis scita Stark, Faun. S. Afr., Birds, ii. p. 122 (1901).

a. Juv. Deelfontein, Jan. 5, 1901. Iris dark hazel.

b. ♀ ad. „ Feb. 8, 1901.

c. ♂ juv. „ Feb. 23, 1902. Bill and feet black.

d-h. ♂ ♀ ad. Deelfontein, March 14, 1902. Iris dark hazel; bill and feet black.

i. Ad. Deelfontein, March 22, 1902.

k. ♂ ad. „ April 25, 1902.

l. ♀ ad. „ June 11, 1902.

The adult female is exactly like the male in general coloration, and has almost as much pink on the throat and abdomen. The male is slightly lighter grey. Young birds are decidedly browner on the upper surface and on the chest, and the pink on the throat and abdomen is absent. Both sexes seem to be browner in winter plumage.

[Not very common, being generally seen in parties of three or four individuals on the kopjes. Very active in its habits.]

62. *PARISOMA SUBCÆRULEUM*.

Parisoma subcæruleum (V.); Sharpe, ed. Layard, pp. 332, 836 (1875-84); id. Cat. B. iv. p. 268 (1879); Shelley, B. Afr. ii. p. 213 (1900); Sharpe, Hand-l. B. iii. p. 242 (1901); Stark, Faun. S. Afr., Birds, ii. p. 75 (1901).

a. ♂ ad. Deelfontein, May 23, 1902.

b. ♂ ad. „ July 31, 1902. Iris light yellow.

c, d. ♂; e. ♀ ad. Deelfontein, Aug. 2-13, 1902.

The male bird killed on the 2nd of August shews some indications of blackish streaks on the head. This is probably a sign of the approach of the nesting-season, but I find very few specimens shewing any traces of these streaks in our large series.

[Very local, and not so common as *P. layardi*. It is mostly found frequenting the dog-wood bushes on the veldt, but we have also met with it on the kopjes. In its flight and actions it resembles *P. layardi*, and it is difficult to distinguish it from that species.]

63. *PARISOMA LAYARDI*.

Parisoma layardi Hartl.; Sharpe, ed. Layard, pp. 334,

836 (1875-84); id. Cat. B. iv. p. 270 (1879); Shelley, B. Afr. ii. p. 215 (1900); Sharpe, Hand-l. B. iii. p. 243 (1901); Stark, Faun. S. Afr., Birds, ii. p. 76 (1901).

a. ♀ ad. Deelfontein, March 14, 1902. Iris very pale yellow; bill and feet black.

b. ♀ ad. Deelfontein, March 25, 1902.

c. ♂ ad. „ April 8, 1902. Iris white; bill and feet black. Shot on a kopje.

d. ♀ ad. Deelfontein, May 24, 1902.

e. ♂ ad. „ May 31, 1902.

f. Ad. „ July 31, 1902. Iris light yellow.

g, h. ♀ ad. „ Aug. 2, 1902.

i. ♀ ad. „ Aug. 13, 1902.

k. ♀ ad. „ Sept. 22, 1902.

l. ♂ ad. „ Sept. 24, 1902.

After the nesting-season, which is evidently in November and December, the plumage becomes much worn, and the under tail-coverts are more dusky, owing to the display of the dark bases of the feathers by the wearing away of the white edges. In March and April a moult takes place, and there is a buff tinge on the lower flanks. The stripes on the throat vary very much in breadth, though this difference is not sexual, as old males and females seem to be exactly alike in plumage, but I think that the young must be more feebly streaked than the adult birds. There is no sign of any Thrush-like spotting on the specimens sent by Messrs. Seimund and Grant, and therefore we may take it as almost certain that the young birds resemble the adults, and that *Parisoma* will have to be removed from the Muscicapidæ.

[Very common, being generally found in the dog-wood bushes. It is a very active little bird, with a pretty call-note; its food consists of insects. We never found the nest, but procured some young.]

64. PYCNONOTUS NIGRICANS.

Pycnonotus capensis, pt., Sharpe, ed. Layard, pp. 207, 815 (1875-84).

Pycnonotus nigricans Sharpe, ed. Layard, p. 815 (1884);

id. Cat. B. vi. p. 134 (1881); Stark, Faun. S. Afr., Birds, ii. p. 64 (1901); Sharpe, Hand-l. B. iii. p. 330 (1901).

a. ♀ imm. Deelfontein, Feb. 16, 1902.

b. ♀ imm. „ April 11, 1902.

c. ♀ ad. „ May 11, 1902.

d, e. ♂ ad. „ May 20, 1902. Iris reddish

brown; eyelid orange; bill and feet black.

f, g. ♂ ♀ ad. Deelfontein, May 22, 1902.

h, i. ♂ ♀ ad. „ Aug. 7, 1902.

The young birds are of a much duller brown than the adults, and have the head and throat brown instead of black. As will be seen by the list, immature examples were obtained in February and April: both are moulting into the adult plumage.

[Fairly common, and said to be very destructive to figs. Mostly found round the farms, but also met with on the kopjes. We procured young birds, but did not find a nest.]

65. TURDUS CABANISI.

Turdus olivaceus, pt., Sharpe, ed. Layard, p. 201 (1876).

Turdus cabanisi Seeböhm, Cat. B. v. p. 228 (1881); Sharpe, ed. Layard, p. 813 (1884); Stark, Faun. S. Afr., Birds, ii. p. 177 (1901).

Merula cabanisi Sharpe, Hand-l. B. iv. p. 127 (1903).

a. ♂ ad. Deelfontein, May 20, 1902.

Deelfontein is an interesting locality for this species, which is more plentiful in the Transvaal.

[This Thrush must have been uncommon in the district, as we saw but one specimen. A farmer told us that he had shot its mate a week before our arrival.]

66. ERYTHROPYGIA CORYPHÆUS.

Aedon coryphæa (L.); Sharpe, ed. Layard, pp. 251, 821 (1875-84).

Erythropygia coryphæus Sharpe, Cat. B. vii. p. 73 (1883); Stark, Faun. S. Afr., Birds, ii. p. 229 (1901); Sharpe, Hand-l. B. iv. p. 167 (1903).

a. ♀ ad. Deelfontein, Jan. 11, 1901.

b-d. ♂ ♀ ad. Deelfontein, Feb. 18-23, 1902. Bill and feet black; eyes dark brown.

e-g. ♂ ad. Deelfontein, March 2-26, 1902.

h. ♂ ad. „ April 15, 1902.

i-n. ♂ ♀ ad. „ May 7-25, 1902.

o. ♀ ad. „ Oct. 8, 1902.

The collectors did not procure any young birds in the spotted stage, but the Museum possesses such a specimen sent by Layard to myself. In the young the edges to the greater coverts and secondaries are distinctly rufous. A male shot on the 23rd of February is moulting from the young plumage into the first winter plumage, and the upper surface is much darker brown and the breast and flanks much more rufous than in breeding birds, which are decidedly greyer both above and below.

[Very common, and found everywhere all the year round; it was in great numbers among the bushes. The nests were placed in old stone walls, and the eggs were generally three in number, rarely four.]

67. PETROPHILA EXPLORATOR.

Monticola explorator Sharpe, ed. Layard, pp. 220, 816 (1875-84); Seebohm, Cat. B. v. p. 323 (1881); Stark, Faun. S. Afr., Birds, ii. p. 183 (1901).

Petrophila explorator Sharpe, Hand-l. B. iv. p. 145 (1903).

a. ♀ ad. Deelfontein, May 31, 1902. [Tarsus 1.35.]

b. ♂; *c, d.* ♀ ad. Deelfontein, June 10-13, 1902. [Tarsus in ♂ 1.35, in ♀ 1.25-1.3.]

e, f. ♀ ad. Deelfontein, Aug. 5-13, 1902. [Tarsus 1.3-1.35.]

The female killed in May appears to be a young bird in first winter plumage; it is rather more rufous on the lower parts, with distinct scaly markings on the chest, which has not the broad whitish stripes found in older birds.

[This Rock-Thrush was not very common, but appeared about the beginning of May, the majority leaving in September, though we shot an occasional bird up to January. It was mostly seen in pairs on the veldt, but was also

observed on the kopjes. We did not succeed in finding a nest.]

68. PETROPHILA BREVIPES.

Monticola brevipes (Waterh.) ; Sharpe, ed. Layard, pp. 221, 816 (1875-84) ; Seebohm, Cat. B. v. p. 324 (1881).

Petrophila brevipes Sharpe, Hand-l. B. iv. p. 145 (1903).

a. ♂ ad. Deelfontein, Jan. 7, 1902. [Tarsus 1.0.]

b, c, d. ♂ ad. „ May 5-22, 1902. [Tarsus 1.0-1.05.]

e. ♀ ad. „ May 23, 1902. [Tarsus 1.0.]

The travellers do not seem to have recognised the distinctness of these two Rock-Thrushes, but *P. brevipes* is smaller, with a shorter tarsus, and has a hoary-white shade over the head. The grey of the throat does not extend to the fore-neck, and the rufous colour of the rump and under parts is paler than in *P. explorator*. The female of *P. brevipes* is likewise greyer above, and is more coarsely mottled with blackish on the sides of the throat, which is very white in contrast ; the rest of the under parts are brighter orange, with narrow black margins to the feathers of the fore-neck and breast, so that the bird does not appear to be striped as the female of *P. explorator* is.

It is a curious fact that both in the 'Catalogue of Birds' and in the 'Hand-list' the specific name of *brevipes* is attributed to Strickland and Selater instead of to the late Mr. G. R. Waterhouse, who first described the species in Alexander's 'Expedition of Discovery' (1838).

69. COSSYPHA CAFFRA.

Cossypha caffra (L.) ; Sharpe, ed. Layard, pp. 224, 816 (1875-84) ; id. Cat. B. vii. p. 39 (1883) ; Stark, Faun. S. Afr., Birds, ii. p. 213 (1901) ; Sharpe, Hand-l. B. iv. p. 163 (1903).

a. ♀ ad. Deelfontein, July 3, 1902.

The single specimen obtained has a very dark throat and chest, approaching cinnamon, as contrasted with the light orange-rufous throat and whitish chin of Natal birds. The difference is not due to seasonal plumage, as specimens killed in January and July are identical. Were it not that

some of the Cape Colony examples are intermediate, I should have considered the dark- and light-throated races to be subspecifically distinct.

[Not common. Partial to the thick bush, and very active in its ways.]

70. PRATINCOLA TORQUATA.

Pratincola torquata (L.); Sharpe, ed. Layard, p. 250 (1875-84); id. Cat. B. iv. p. 190 (1879); Stark, Faun. S. Afr., Birds, ii. p. 190 (1901); Sharpe, Hand-l. B. iv. p. 172 (1903).

a. ♂ ad. Deelfontein, Aug. 5, 1902.

[This Stone-Chat was a very rare bird with us.]

71. MYRMECOCICHLA FORMICIVORA.

Myrmecocichla formicivora Sharpe, ed. Layard, p. 231 (1875-84); Seebohm, Cat. B. v. p. 356 (1881); Stark, Faun. S. Afr., Birds, ii. p. 186 (1901); Sharpe, Hand-l. B. iv. p. 174 (1903).

a. ♂. Deelfontein, Feb. 28, 1892.

b-e. ♂ ♀ ad. ,, April 29, 1902.

f, g. ♂ ♀ ad. ,, May 15, 1902.

h. ♂. ,, Aug. 29, 1902.

This species has a distinct winter plumage. The breeding birds are rusty brown in hue, as is shown by the specimen killed in February. In April they moult into a much darker plumage, the feathers of the under surface being black with broad brown edges, more or less ashy in tint. This plumage continues through the winter, and by abrasion of the margins becomes much more rusty towards the breeding-season.

[This Chat was very common, and was generally seen sitting on an ant-hill or on a bush of about the same height. It was a resident bird with us, being met with all the year round, and, when searching for insects, it had a hovering flight, sustaining itself in the air with rapid beats of its wings.]

72. POLIIOCICHLA SINUATA.

Saricola sinuata Sharpe, ed. Layard, pp. 236, 818 (1875-84).

Myrmecocichla sinuata Seebohm, Cat. B. v. p. 359 (1881).

Emarginata sinuata Shelley, B. Afr. i. p. 89 (1896); Stark, Faun. S. Afr., Birds, ii. p. 203 (1901).

Poliocichla sinuata Sharpe, Hand-l. B. iv. p. 175 (1903).

- a, b.* ♀ ad. et juv. Deelfontein, Jan. 8-23, 1901.
c-e. ♂ ♀ ad. et juv. „ Feb. 1-4, 1901.
f, g. ♀ imm. et juv. „ Feb. 7-16, 1902.
h-l. ♂ ; *m-o.* ♀ ad. „ May 15-24, 1902.
p. ? ♀ ad. „ June 10, 1902.
q-s. ♂ ad. „ Aug. 23-25, 1902. Iris dark brown.
t-v. ♂ ad. et ♂ ♀ juv. „ Oct. 29, 1902.

Young birds in spotted plumage were obtained in October and also in January. The nestlings shew the sinuation of the primary very distinctly, while by the latter month the first brood have evidently begun to moult and by the early part of February are in their first winter plumage. This in old and young birds is more ashy brown than the breeding-dress, which becomes worn and abraded.

[This was a very common Chat, found nearly everywhere on the kopjes and veldt. Its food consisted of insects only.]

73. POLIOCICHLA POLLUX.

Saxicola pollux Hartl. ; Sharpe, ed. Layard, pp. 244, 819 (1875-84).

Myrmecocichla pollux Seebohm, Cat. B. v. p. 357.

Emarginata pollux Shelley, B. Afr. i. p. 89 (1896); Stark, Faun. S. Afr., Birds, ii. p. 203 (1901).

Poliocichla pollux Sharpe, Hand-l. B. iv. p. 175 (1903).

- a.* ♀ ad. Deelfontein, Feb. 28, 1902. Iris hazel ; bill and legs black.
b, c. ♀ ad. „ March 19-22, 1902.
d. ♂ ad. „ April 25, 1902.
e. ♀ ad. „ May 9, 1902.
f. ♀ ad. „ May 23, 1902.
g, h. ♂ ad. „ Aug. 25, 1902.

i. ♀ ad. Deelfontein, Sept. 5, 1902.

k. ♂ ad. „ Dec. 10, 1902.

The winter plumage seems to be browner than the breeding-plumage, when the brownish edgings fall off and leave the summer dress grey. On the under surface there is a very distinct shade of rusty colour pervading the throat, abdomen, and under tail-coverts. The upper tail-coverts are slaty grey, but they shew a good deal of white near their bases, and some of the lateral feathers are entirely white. We shall thus have three forms:—

a. Upper tail-coverts white.

a'. Larger : ashy grey ; throat and breast light
 ashy grey..... *cinerea* (Gt. Namaqua-land).

b'. Smaller : light brownish grey ; throat and
 breast delicate isabelline *schlegeli* (Damara-land).

b. Upper tail-coverts ashy grey, the lateral white.

Dark ashy grey ; throat and breast cindery
 grey..... *pollux* (Cape Colony).

The series brought by Messrs. Seimund and Grant is very interesting as shewing the plumage of the species throughout the year, though there is little change as regards colour ; the sharpness of the indentation on the first primary varies somewhat, being slightly less marked in freshy moulted specimens. The bird which is found in Great Namaqua-land, with the upper tail-coverts entirely pure white, is, I believe, the veritable *Ænanthe cinerea* of Vieillot, founded on the “*Traetrae*” of Levaillant from Outeniqua-land. *P. schlegeli* seems to be a light form of *P. cinerea*.

[The large grey Sickle-wing Chat was not very common. It was difficult to distinguish it by its habits from *Saxicola monticola*. It was very fond of sitting on telegraph-wires and tall bushes.]

74. POLIOCICHLA LAYARDI.

Saxicola layardi Sharpe, ed. Layard, pp. 236, 818 (1875-84) ; Seebohm, Cat. B. v. p. 399, pl. xviii. (1881) ; Stark, Faun. S. Afr., Birds, ii. p. 200 (1901) ; Sharpe, Hand-l. B. iv. p. 176 (1903).

a. ♀ juv. Deelfontein, Jan. 8, 1901.

b, c. ♂ ; *d.* ♀ ad. Deelfontein, May 15, 1902.

e. ♀ ad. Deelfontein, Oct. 10, 1902.

There is a very distinct sinuation at the end of the first long primary (2nd), and thus *Saxicola layardi* must be placed in *Poliocichla*, or the variation in sinuation shown by the different species must be considered to prove the worthlessness of the character, and all the species replaced in the genus *Saxicola*.

P. layardi finds its natural position near *P. sinuata* and closely resembles it in colour. It is, however, distinguished by its creamy-white upper tail-coverts and base of tail, which are rufous in *P. sinuata*.

The nestling is much lighter than in *P. sinuata*, the sandy spots are very much paler, and the upper tail-coverts are conspicuously sandy white, not rufous.

[Not very common, and rather shy. Found on the rocky flats.]

75. SAXICOLA FAMILIARIS.

Saxicola galtoni Strickl. ; Sharpe, ed. Layard, pp. 234, 818 (1875-84) ; Seebohm, Cat. B. v. p. 390 (1881) ; Stark, Faun. S. Afr., Birds, ii. p. 201 (1901).

Saxicola familiaris Steph. ; Sharpe, Hand-l. B. iv. p. 175 (1903).

a, b. ♀ ad. et ♂ juv. Deelfontein, Feb. 12 & 28, 1902. Iris dark brown ; bill and feet black.

c-e. ♂ ♀ ad. Deelfontein, March 5 & 13, 1902.

f. ♂ ad. „ April 2, 1902.

g-l. ♂ ♀ ad. „ May 5-31, 1902.

m, n. ♂ ♀ ad. „ June 3, 1902.

o. ? ♀ ad. „ Aug. 5, 1902.

p. ♂ ad. „ Oct. 24, 1902.

There is apparently no difference in colour between the sexes, and the young, after losing the spotted plumage, moult into a dark brown dress, which later becomes a little paler and more ashy brown from August to the breeding-season.

In all these Deelfontein birds there is a broad and distinct

black band at the end of the tail-feathers, varying only slightly in width. The Natal birds seem to me to be inseparable from those of the Cape Colony; but in Transvaal examples the black band is always narrower, broken up, and on some of the feathers occasionally absent altogether, the colour of the tail being also lighter chestnut. This bird is the *Saxicola familiaris hellmayri* of Reichenow (Orn. MB. x. p. 78). *S. libberti* of Reichenow (op. cit. p. 77) is a pale form of *S. familiaris*, with a very broad black band at the end of the tail and a somewhat more ashy coloration.

S. falkensteini Cab., described from the Loango Coast (J. f. O. 1875, p. 235), was also found at Schasche by Fischer (Reichen. J. f. O. 1887, p. 78). It is represented in the Seebohm Collection by a specimen from Ugogo. It is ashy below, with a whitish throat and abdomen, while it has the blackish band at the end of the tail much narrower than in *S. familiaris*, and broken up into two spots on some of the feathers, so that the band itself becomes obsolete. To this form I also refer the Zomba specimen recorded by Capt. Shelley as *S. galtoni* (Ibis, 1894, p. 12).

[This was a fairly common species, and frequented the sides of the kopjes, where its nest was generally placed under a stone. These birds keep their wings constantly in motion, and seldom rest them for more than a few moments at a time.]

76. SAXICOLA MONTICOLA.

Saxicola monticola and *S. anderssoni* Sharpe, ed. Layard, pp. 246, 249, 819 (1875-84).

Saxicola monticola (V.); Seebohm, Cat. B. v. p. 380 (1881); Stark, Faun. S. Afr., Birds, ii. p. 194 (1901); Sharpe, Hand-l. B. iv. p. 177 (1903).

a. ♂ juv. Deelfontein, Jan. 1901. Iris hazel.

This bird was killed by Seimund with a catapult when he was first invalided to Deelfontein Hospital. It is black above and below, with a white rump and upper tail-coverts; the outer tail-feathers are not pure white, but shew a great deal of black. Not only does this form a bar at the end of

the outer rectrices, but the shafts and the outer webs are also black for a considerable distance, the black increasing in extent towards the centre of the tail, and the white disappearing towards the central rectrices, which are entirely black. This is but the full-grown development of the nestling procured in November, except that the white shoulder-patch is not developed as in the nestling, but what there is of it is *grey*, not light grey, but rather dark slaty grey. The bird is also moulting its body-feathers, and on the sides of the neck and lower back the new plumes are similarly slaty grey.

b. ♀ ad. Deelfontein, Feb. 19, 1901.

This is another bird from Seimund's "catapult" collection of 1901. It is an ordinary female, smoky brown all over except for the white rump and upper tail-coverts. The terminal third of the outer tail-feathers is black.

c. ♂ imm. Deelfontein, March 3, 1902.

A bird in moult from the black plumage to the slaty-grey dress. Lower rump and upper tail-coverts white; otherwise with only an occasional white feather on the lower abdomen; central under tail-coverts black, lateral white; outer rectrices broadly black at the ends and along the outer web. Shoulder-patch not largely developed, some of it ashy, other feathers white, but the ashy shade prevailing.

d. ♂ imm. Deelfontein, March 4, 1902.

This bird has the same grey style of plumage as the foregoing, but is further advanced. It is nearly uniform slaty grey, and the black has all but disappeared from the body-plumage; the under tail-coverts are almost all black, and the outer tail-feathers are entirely white. The head is dark grey like the back, the upper tail-coverts white, with a black marking or two at the ends of the longer feathers. The shoulder-patch is ashy grey, with a little more white on the inner median coverts.

e. ♂ ad. Deelfontein, March 4, 1902.

This bird was killed on the same day as the preceding example, which it resembles in being slaty grey, but of a much lighter shade. The outer tail-feathers, instead of being

white, are tipped with black, as in the preceding *young birds*. The specimen is in full moult, and the new greater coverts and inner secondaries are black with broad grey margins. The shoulder-patch is decidedly whiter than in the previously mentioned grey bird.

f. ♀ imm. Deelfontein, March 10, 1902.

The newly moulted feathers are black in comparison with the brown shade to which they ultimately bleach.

g, h. ♂ ♀ ad. Deelfontein, March 19, 1902.

The male has not got the entirely white outer tail-feather; otherwise it is grey and resembles specimen *e* (March 4). In confirmation of the grey plumage being consequent upon the blackish dress, there are still some black feathers remaining on the abdomen.

i, k. ♀ ad. Deelfontein, March 22-31, 1902.

l. ♂ ad. „ April 29, 1902.

A very remarkable specimen which has not yet quite completed its moult. It is black *both above and below*, with black under tail-coverts, a few only of which are fringed with white. The shoulder-patch is pure white, with black bases to a few of the feathers. The crown is somewhat browner than the back and forms a faint cap. The outer tail-feathers are not pure white, but have black tips.

m. ♂ ad. Deelfontein, April 23, 1902.

An adult bird in full grey plumage with the two outer tail-feathers white. The shoulder-patch is very slightly paler grey than the back. The inner median coverts are rather more hoary. The rump is white, but the upper tail-coverts are blackish, more or less washed with slaty grey. The under-tail-coverts are slaty grey, the longer being blackish.

n. ♂ ad. Deelfontein, May 7, 1902.

A *grey* bird, similar to the foregoing, but darker and inclining more to slate-colour, with the bases of the feathers and the centre of most of them blackish, apparently foreshadowing a blackening of the feather *without a direct moult*. The shoulder-patch is grey and the outer tail-feathers are white as in the preceding specimen, while the upper and under tail-coverts are also similar. Most of these grey males have

the ear-coverts distinctly brown, forming an auricular patch, in contrast with rest of the plumage.

o. ♀ ad. Deelfontein, May 25, 1902.

An adult female which has completed its moult. The plumage is somewhat greyer than at any other time of the year, especially on the throat and under parts.

p. ♂ ad. Deelfontein, June 14, 1902.

This is a very puzzling specimen, and does not agree with any of the stages accounted for by Butler, Feilden, and Reid. It must be an *old* bird, as it has the outer tail-feathers perfectly white, but the general colour of the plumage is *glossy black*, the shoulder-patch, rump, and abdomen being, however, *pure white*. The head under certain lights appears to have a little browner shade than the back.

q. ♂ ad. Deelfontein, July 22, 1902.

r. ♂ ad. „ July 31, 1902.

This is another extraordinary case, the general colour being *blackish* with a very distinct wash of brown. The head and neck are *dull slaty grey*. The shoulder-patch is pure white with black bases to many of the median coverts. The lower rump and upper tail-coverts are pure white, the longer feathers of the latter having greyish-white tips. The *abdomen is hoary white*, but obscured by a good many brownish feathers. The outer tail-feathers are not pure white, but have the black tips which seem to be a sign of immaturity.

s. ♂ ad. Deelfontein, Aug. 2, 1902.

This bird is *black, above and below*, though the primary and secondary quills are much browner. The shoulder-patch and upper tail-coverts are white (the longer coverts black). Some of the feathers of the abdomen are tipped with white. The three outer tail-feathers are tipped and margined on the apical portion with black. The brown wings and tail seem to belong to the first plumage; the black dress otherwise appears to be freshly assumed.

t. ♂ ad. Deelfontein, Aug. 5, 1902.

An interesting bird in particoloured plumage—apparently old, as it has the outer tail-feathers pure white. The head and neck are light ashy grey, which shade extends over the

mantle. The shoulder-patch and entire abdomen are pure white. The under tail-coverts are black, some of them fringed with white.

u. ♀ ad. Deelfontein, Aug. 6, 1902.

This specimen has a brown appearance above and below, which is caused by the paler fringes or margins of the feathers, while the bases of the feathers are black. The upper tail-coverts are white, the longer feathers being black, tipped with white. The lower abdomen is white, the under tail-coverts black fringed with white.

v. ♂ ad. Deelfontein, Aug. 7, 1902.

This specimen is *grey*, with the rump and upper tail-coverts pure white. The shoulder-patch and lower abdomen are ashy white. The ear-coverts are brown, contrasting with the grey on the sides of the neck. The two outer tail-feathers on each side are pure white; the next pair are white on the outer webs, mottled with grey on the inner web and tipped with black.

w, x, y. ♀ ad. Deelfontein, Aug. 10, 12, 24, 1902.

One of these hen birds has the two outer tail-feathers white on one side and the penultimate one on the other side also white.

z. ♂ ad. Deelfontein, Aug. 25, 1902.

This bird is much darker grey than the preceding males, both above and below, including the abdomen; the wing-patch is paler grey with dark shaft-streaks; the rump and upper tail-coverts are pure white, the long coverts black; the outer tail-feathers on one side are white, tipped with black, while on the other side the feathers are mottled with grey, becoming white at the tips.

a'. ♂ ad. Deelfontein, Oct. 22, 1902.

A grey bird very similar to that killed on the 25th of August, but evidently breeding and in somewhat worn plumage. The shoulder-patch is *white*.

b'. ♂; *c', d'.* ♀ pull. Deelfontein, Nov. 19, 1902.

Of these three nestlings the male shews the white shoulder-patch, which is not seen in the two females.

e'. ♂ ad. Deelfontein, Nov. 25, 1902.

A particoloured bird with black back, throat, and breast,

but with white shoulder-patch, rump, and *abdomen*; outer tail-feather on each side white. The crown is dull slate-coloured mottled with black centres to the feathers.

f'. ♂ ad. Deelfontein, Nov. 24, 1902. "With nest and three eggs."

A dark grey bird with *ashy whitish abdomen*. It is in much worn plumage and therefore appears black in the centre of the back, and mottled with black on the under surface where the grey margins to the feathers have worn off. The shoulder-patch is ashy grey, inclining to dull whitish on the inner median coverts.

The most curious feature of this bird is that it has not white outer tail-feathers, but has the outermost rectrices tipped with black like those of a young bird! The eggs are pale blue, with faint lilac spots, dots, and streaks, clustering chiefly round the larger end, where they form a zone. Axis 0.9-1.0 inch, diam. 0.65.

g'. ♂ ad. Deelfontein, Dec. 22, 1902.

A light grey bird in terribly worn plumage, but with the outer tail-feathers pure white.

Anyone examining this useful series of Chats, which includes nestlings, moulting birds, and specimens obtained throughout the year, can scarcely wonder that Mr. Seebohm believed in the existence of two species, between which occurred an endless number of hybrids. I prefer, however, the conclusions of Colonels Butler and Feilden and Captain Savile Reid, after having tested their results by the present series.

The difficulty in admitting so many different stages in a single species once more forces itself upon our attention, notwithstanding the Deelfontein series. That the young birds pass from the first black plumage to a black dress with white shoulders and (white or black) abdomen seems certain. The head afterwards becomes a little greyer, then still more grey, then light pearly grey, and in its final stages the abdomen is either white or black. In the whole of this series the shoulder-patch is white and not ashy, and the outer tail-feathers are mostly tipped with black, not always completely, while for the bird to have two entirely white outer

tail-feathers is a rare occurrence. This sequence of plumages is illustrated by the series in the British Museum, and, so far as I can see, the sequence is fairly complete. It embraces stages 1-7 in the essay of Colonels Butler and Feilden and Captain Reid. It is difficult to understand why a species, having attained to the beautiful plumage which the grey-headed black birds exhibit, should pass on to the pure grey dress as the above-named authors have declared to be the case. The Deelfontein collection has many specimens of the grey phase, but none which shew a transition from the black bird to the grey. On the contrary, there is a regular gradation, as we perceive by my remarks, from the black young bird through its first moult to the dark slaty grey and then to the pearly grey plumage.

The Damara-land bird must after all be separated from *S. monticola*, on account of its creamy-white or pure white crown, and it is decidedly remarkable that in Damara-land also occurs a parallel equivalent to the pearly grey form. This would seem to imply that the black-backed, white-headed, and ashy-whitish birds occur throughout Damara-land and that a state of things exists there parallel to the case of *S. monticola*.

The ashy-grey Chat is Le Traquet Montagnard, jeune âge, of Levaillant (vol. iv. pl. clxxxv. fig. 1). So far from being a young bird, it is certainly an adult. It is also *S. tephronota* of Gurney, Ibis, 1877, p. 343. Seebohm has catalogued this type as a female, but it is a very old *male* of the grey form. Another name for this species is *S. castor* Hartlaub, P. Z. S. 1865, p. 747 (figured by Blanford and Dresser, P. Z. S. 1874, pl. xxxviii. fig. 2).

The "Traquet Montagnard" of Levaillant (pl. clxxxiv. fig. 2), upon which the name of *S. monticola* was founded, was a young bird in black plumage. We have several specimens in the Museum which exactly match it, and the figure given by Levaillant as "Le moyen âge" (pl. clxxxv. fig. 2) is really that of the adult male of the grey-headed black-backed Chat. This is also the true *S. leucomelana* of Burchell, which was discovered on the Asbestos Mountains near the Orange River.

For some reason or another. Seebohm restricted the range of this species to Damara-land and Benguela, but the Chat from that country must bear the name of *S. aequatorialis*, so far as I can see. It is also *S. albipileata* of Boeage. It is the bird figured by Blanford and Dresser under the name *S. leucomelana* (P. Z. S. 1874, pl. xxxvii. figs. 1 & 2), but *S. griseiceps* of the same authors is identical with the true *S. monticola*, of which it is the adult stage.

Saxicola diluta of Blanford and Dresser holds the same position with regard to *S. aequatorialis* as *S. castor* holds to *S. monticola*.

On the subject of these Chats the reader should consult Finsch, Notes Leyden Museum, xxii. pp. 153-156 (1900). Until we get an adult male moulting from the black-backed stage (*S. monticola* or *S. leucomelana*) into the grey stage (*S. castor* or *S. diluta*) I feel inclined to admit that there are four species of these Chats in South Africa.

[Found throughout the year and very common, both on the kopjes and the veldt. It was always seen singly or in pairs, never in flocks. Specimens were often taken in traps baited with meat. The nest was built in the rocks on the kopjes, also in holes in "sluit"-walls, and even in old block-houses; three eggs were the usual number, but occasionally four were met with. It did not live well in captivity.]

77. CAMPICOLA PILEATA.

Saxicola pileata Sharpe, ed. Layard, pp. 238, 818 (1875-84); Seebohm, Cat. B. v. p. 397 (1881); Stark, Faun. S. Afr., Birds, ii. p. 196 (1901).

Campicola pileata Sharpe, Hand-l. B. iv. p. 180 (1903).

- a. ♀ imm. Deelfontein, Feb. 8, 1902.
- b, c. ♀ imm. et juv. Deelfontein, Feb. 12, 1902.
- d. ♂ juv. Deelfontein, Feb. 28, 1902.
- e. ♂ ad. ,, March 7, 1902.
- f. ♀ ad. ,, April 3, 1902.
- g, h. ♂ ad. ,, May 6-15, 1902.
- i. ♂ ad. ,, June 11, 1902.
- k. ♂ ad. ,, Aug. 30, 1902.

l, m. ♂ ad. Deelfontein, Sept. 22, 1902.

n. ♀ ad. „ Sept. 24, 1902.

o. ♂ ad.; *p.* ♀ juv. Deelfontein, Nov. 19, 1902.

The breeding-season commences in November, full-grown young birds having been obtained on the 19th of that month, and others at the end of February, which were doubtless a second brood. Some young have nearly completed their moult by the 8th and 12th of February.

Males and females are alike in plumage, and the only difference between the summer and winter dress consists in the somewhat brighter tints of the latter, the upper parts being more ashy and the rufous edges to the quills broader: these edgings become worn off in the breeding-season.

[Very common, frequenting rubbish-heaps, where it was always to be found feeding on insects. The actions resemble those of our English Robin.]

78. ACROCEPHALUS BATICATUS.

Acrocephalus baticatus Sharpe, ed. Layard, p. 290 (1876); Seebohm, Cat. B. v. p. 106 (1881); Stark, Faun. S. Afr., Birds, ii. p. 91 (1901); Sharpe, Hand-l. B. iv. p. 189 (1903).

a-d. ♂ ♀ ad. Deelfontein, Feb. 12, 1902.

e. ♀ ad. „ March 3, 1902. Feet olive-green; iris greyish hazel.

f. ♂ „ Oct. 24, 1902.

The birds are moulting in February, but there is very little difference between the spring and autumn plumage, excepting that the latter is a little more rufescent.

[The Reed-Warbler generally arrived in January, and was found along the hedge-rows in the majority of the farms; it was fairly common.]

79. CISTICOLA SUBRUFICAPILLA.

Cisticola subruficapilla Sharpe, ed. Layard, pp. 266, 823 (1875-84); id. Cat. B. vii. p. 283 (1883); Stark, Faun. S. Afr., Birds, ii. p. 151 (1901); Sharpe, Hand-l. B. iv. p. 199 (1903).

a, b. ♂ ♀ ad. Deelfontein, March 14-25, 1902. Iris raw sienna; lower mandible heliotrope; feet brownish pink.

c. ♂ ad. Deelfontein, May 15, 1902.

d, e. ♀ ad. „ Aug. 13, 1902.

[Found all the year round, but not very commonly, generally on the kopjes, but occasionally also on the veldt. It is usually met with in pairs, but in winter three or four may be seen together, often in company with other birds.]

80. *SPILOPTILA OCULARIS.*

Drymarca ocularis Smith; Sharpe, ed. Layard, p. 256 (1876).

SpiLOPTILA ocularis Sharpe, Cat. B. Brit. Mus. vii. p. 232 (1883); Stark, Faun. S. Afr., Birds, ii. p. 138 (1901); Sharpe, Hand-l. B. iv. p. 201 (1903).

a, b. ♂ ad.; *c, d.* ♂ ♀ juv. Deelfontein, Jan. 7-31, 1901.

e. ♀ juv. Deelfontein, Jan. 9, 1901.

f, g. ♀ ad. et ♀ juv. Deelfontein, Feb. 1 & 2, 1901.

Iris light hazel.

h. ♂ ad. Deelfontein, Feb. 27, 1902.

i, k. ♂ ♀ ad. „ March 25, 1902.

l. ♂ ad. „ March 23, 1902. Iris light hazel;
bill black; feet light brown.

m, n. ♂ ad. „ Aug. 25, 1902.

o. ♂ ad. „ Sept. 30, 1902.

p, q. ♂ pull. „ Oct. 28, 1902. Iris greyish brown;
base of bill lilac; feet brownish flesh-coloured.

It is very interesting to find that the young male and young female (if correctly sexed) both possess a black collar in the nestling plumage, though in one female obtained on the 1st of February the black collar is absent or barely represented by a dusky shade.

According to the nestlings, this species must breed from October to February, and even the male shot on the 30th of September has the plumage decidedly worn and is apparently a breeding bird; this specimen has remains of black spots on the throat like the Hopetown specimens referred to in the Catalogue (p. 233), which I believed to be in the winter dress of the species; but from the specimens brought home by Messrs. Seimund and Grant it is evident that there is very little difference between the summer and the winter plumage.

As a rule, the more chestnut face of the male is well marked when compared with the more cinnamon face of the female; and young birds of both sexes have the lighter-coloured face of the old hen bird. Only one female specimen in the Deelfontein collection has a chestnut face, and possibly this may have been wrongly sexed.

I find that the specimens from Mashona-land are not the same as the birds from the Cape Colony. They are much paler and more fulvescent above and with scarcely any grey on the crown or neck, while the rufous eyebrow and face is of a light vinous cinnamon; the sides of the body, flanks, and thighs, as well as the under tail-coverts, are light sandy buff, not streaked as in the typical *S. ocularis*. This pale race, specimens of which are in the Museum from the Malopo and Hart Rivers, collected by J. S. Jameson, seems to extend across to Great Namaqua-land, while some of the Transvaal examples appear to be somewhat intermediate. I have named this pale form *S. malopensis* [cf. Bull. B. O. C. xiii. p. 80].

[Found all the year round and very common; it is mostly met with on the veldt, but sometimes on the kopjes. The Boer name is "Tentenki," a term used for most of the small Warblers.]

81. EURYPTILA SUBCINNAMOMEA.

Cisticola subcinnamomea Sharpe, ed. Layard, p. 273 (1876).

Euryptila subcinnamomea Sharpe, Cat. B. vii. p. 116 (1883); Stark, Faun. S. Afr., Birds, ii. p. 97 (1901); id. Hand-l. B. iv. p. 204 (1903).

a-c. ♂ ♀ ad. Deelfontein, Feb. 19 & 20, 1901.

d. ♀ ad. „ March 14, 1902. Shot on a kopje.

e, f. ♂ ♀ ad. „ Oct. 7, 1902. Iris brownish grey.

g. ♂. „ Dec. 8, 1902. With nest and three eggs.

This is a very rare species in collections, and I was glad to receive the first specimens which, for want of a gun,

Mr. Seimund procured with a catapult. In the second collection are the nest and eggs procured on the 8th of December. The latter are pale bluish white with numerous dots and small spots of lilac distributed generally over the egg, but with the larger dots most visible near the big end. Axis 0·75 inch, diam. 0·55.

The birds procured in October are still in full winter plumage, and are much more ashy on the throat and chest. The ashy margins become much abraded during the nesting-period, and the plumage becomes thereby darker. In February the moult is nearly completed.

[We called this the "Kopje Bird," but the Dutch name for it and for several of the small Warblers was "Tentenki." It was found with us all the year round, and was fairly common, being generally seen in pairs, but occasionally in family-parties. It is very quick in its ways, and hops in and out among the large stones in search of its food, which consists of insects. The nest was found in the grass at the foot of a big rock on a kopje, and was composed chiefly of spiders' webs. The rock was surrounded by thick bush. The eggs are two or three, sometimes four, in number.]

82. *DRYODROMAS ICTEROPYGIALIS.*

Dryodromas icteropygialis (Lafr.) ; Sharpe, Cat. B. vii. p. 148 (1883) ; id. Hand-l. B. iv. p. 225 (1903).

Chlorodyta icteropygialis Shelley, B. Afr. i. p. 72 (1896) ; Stark, Faun. S. Afr., Birds, ii. p. 127 (1901).

a. ♂ juv. Deelfontein, Jan. 27, 1901.

b. ♀ ad. ; Sept. 25, 1902. Iris yellow.

The specimen obtained in January is a young bird with a yellow base to the bill and bright yellow under tail-coverts. There is very little of the isabelline tinge on the breast, as in the other specimens in the Museum, and I imagine that this is a sign of winter plumage.

83. *SYLVIELLA RUFESCENS.*

Sylviella rufescens Sharpe, ed. Layard, pp. 303, 829 (1875-84) ; id. Cat. B. vii. p. 153 (1883) ; Stark, Faun. S. Afr., Birds, ii. p. 115 (1901) ; Sharpe, Hand-l. B. iv. p. 226 (1903).

a. ♂ ad. Deelfontein, May 23, 1902.

b. ♀ ad. „ July 3, 1902.

c-e. ♂ ♀ ad. „ Aug. 7-13, 1902. Iris umber.

This species seems to me to fade a good deal in colour, one specimen killed on the 12th of August, when the nesting-season was probably approaching, being much paler than the other three—the difference being apparently due to the slightly more worn plumage.

[Although found with us all the year round, this species was not very common; it was met with in the thick bushes of dog-thorn or black-thorn.]

84. EREMOMELA FLAVIVENTRIS.

Eremomela flaviventris Sharpe, ed. Layard, pp. 297, 827 (1875-84); id. Cat. B. vii. p. 159 (1883); Stark, Faun. S. Afr., Birds, ii. p. 106 (1901); Sharpe, Hand-l. B. iv. p. 229 (1903).

a-f. ♂ ad. et ♂ ♀ juv. Deelfontein, Jan. 3-27, 1901.

g. ♂ ad. Deelfontein, Feb. 12, 1902.

h, i. ♂ ad. „ May 15 & 31, 1902.

k. ♀ ad. „ June 10, 1902.

l, m. Ad. „ Aug. 2 & 13, 1902.

n. ♀ ad. „ May 20, 1902.

o, p. ♂ ♀ ad. „ Sept. 5 & 22, 1902.

The young are just like the old birds, but are a little paler and more sulphur-yellow on the abdomen. Nestlings were procured in January, when the old birds were in moult, as also were the specimens shot in February. In May the birds have assumed their full winter plumage, which is much darker than the breeding-dress, and the throat and chest are strongly shaded with isabelline; the yellow on the abdomen is much brighter and has a tinge of saffron. By September the throat and chest have become greyer and more ashy and the yellow of the abdomen much paler.

I think that the Damara-land form of *E. flaviventris* should be separated as *E. damarensis*. It is a much paler bird, with light sulphur-yellow abdomen, lighter and pale clay-brown

above, especially on the head, with a distinguishable whitish eyebrow and whitish under wing-coverts.

The other yellow-bellied *Eremomela*, which I have called *E. polioxantha*, seems to me to be quite a distinct species. Besides the typical specimen from Swazi-land, the Museum has another from Mashona-land procured by the late J. S. Jameson, and also one from Nyasa-land, presented by General Manning.

[A resident all the year round, though more plentiful at some seasons than others; in winter it was noticed in small parties of five or six. It builds a very small nest in the side of a black-thorn bush.]

85. PRINIA MACULOSA.

Drymucca maculosa Bodd. ; Sharpe, ed. Layard, pp. 259, 822 (1875-84) ; id. Cat. B. vii. p. 189 (1883) ; Stark, Faun. S. Afr., Birds, ii. p. 133 (1901) ; Sharpe, Hand-l. B. iv. p. 240 (1903).

a-d. ♂ ♀ ad. Deelfontein, Feb. 12-27, 1902.

e, f. ♂ ♀ ad. „ March 14, 1902.

g, h. ♂ ♀ ad. „ April 8, 1902.

i. ♂ ad. „ May 15, 1902.

k. ♂ ad. „ Aug. 2, 1902.

There is no difference in the colour of the sexes, and an adult female (April 8) in winter plumage measures:—Total length 5·2 inches, culmen 0·5, wing 2·0, tail 2·85, tarsus 0·8. A male (Aug. 2) has the wing 2·0 and the tail 3·0, but beyond this slight predominance there is little difference in dimensions. The young are less broadly streaked below than the old birds, and moult into their full winter plumage in February. At that season the yellow on the under surface is rather brighter than in the breeding-season.

[Fairly common, found in the long grass in damp places, though occasionally seen on the sides of the kopjes.]

86. FISCUS COLLARIS.

Lanius collaris L. ; Sharpe, ed. Layard, pp. 374, 841 (1875-84) ; Gadow, Cat. B. viii. p. 255 (1883) ; Stark, Faun. S. Afr., Birds, ii. p. 6 (1901) ; Reichenow, Vög. Afrikas, ii. p. 607 (1903).

Fiscus collaris Sharpe, Hand-l. B. iv. p. 284 (1903).

a, b. ♂ pull. Deelfontein, Jan. 23, 24, 1901.

c, d. ♂ ♀ juv. „ Feb. 8-11, 1901.

e, f. ♀ juv. „ Feb. 22 & 28, 1902.

g. ♂ juv. „ March 1, 1902.

h-l. ♂ ♀ ad. „ May 5-27, 1902. Eyes dark
hazel; bill and legs black.

m. ♂ ad. „ July 3, 1902.

n. ♀ ad. „ Aug. 25, 1902.

o. ♀ ad. „ Sept. 23, 1902.

p, q. ♂ ♀ ad. „ Oct. 24-27, 1902.

Young birds in barred plumage were obtained in January and February, and in March the specimens were in full moult. The frecklings on the under surface seem to exist even in the plumage of fully moulted birds, which become either black or brownish black above, but the pure white under surface appears to be gained by very old individuals only. One or two specimens have indications of white plumes on the lores. The two eggs obtained on the 19th of December are clouded after the usual manner of Shrikes' eggs, and are of an olive stone-colour, with blotches and spots of pale purplish and light brown. Axis 0·8 inch, diam. 0·6.

[A very common bird, generally found sitting on the higher bushes on the watch for its prey, which consists chiefly of grasshoppers; young birds and insects of various kinds were found pinned on thorns. This Shrike is met with all the year round on the kopjes and on the veldt. The nest is generally built in thorn-bushes; some are very hard to reach, while others are placed at the end of the longest branch. Eggs, three or four.]

87. PELICINIUS GUTTURALIS.

Turdus gutturalis P. L. S. Müll. Natursyst. Anhang, p. 144 (1776).

Laniarius gutturalis Sharpe, ed. Layard, pp. 385, 842 (1875-84); Stark, Faun. S. Afr., Birds, ii. p. 33 (1901).

Pelicius zeylonus Reichenow, Vög. Afrikas, ii. p. 568 (1903).

Pelicius gutturalis Sharpe, Hand-l. B. iv. p. 292 (1903).

- a.* ♀ ad. Deelfontein, Feb. 12, 1902.
b. ♀ imm. „ April 3, 1902.
c, d. ♂ ♀ ad. „ May 19, 1902.
e. ♂ ad. „ July 3, 1902.
f. ♀ ad. „ July 23, 1902.
g. ♂ ad. „ Aug. 7, 1902.
h. ♂ ad. „ Nov. 8, 1902.

The birds in winter dress are decidedly brighter than the breeding birds, as the plumage gets worn and the colours fade. The males and females do not differ: the hen bird killed in April was moulting. A young female obtained on the 3rd of April had nearly completed its moult and had begun to put on the black collar.

[The " Buckmeecary " Bush-Shrike was very common and found all the year round. The nests were generally in black-thorn bushes, and the eggs three in number.]

88. PENTHERES AFER.

Parus afer, pt., Sharpe, ed. Layard, pp. 329, 835 (1875-84); Gadow, Cat. B. viii. p. 39 (1883); Stark, Faun. S. Afr., Birds, i. p. 305 (1900); Shelley, B. Afr. ii. p. 241 (1900).

Pentheres afer Sharpe, Hand-l. B. iv. p. 332 (1903).

- a, b.* ♂ ad. Deelfontein, Feb. 9-12, 1902.
c, d. ♂ ♀ ad. „ March 5-19, 1902.
e-g. ♂ ♀ ad. „ Aug. 7, 1902.
h, i. ♂ ♀ ad. „ Sept. 5, 1902.
k-p. ♂ ♀ ad. et juv. Deelfontein, Nov. 30, 1902.
q, r. ♂ ♀ ad. „ Dec. 22, 1902.

Captain Shelley, writing before the advent of this Deelfontein series, makes out three races of *Parus afer*, and must apparently have considered the specimen from Cape Town (*Butler*) to be a stage of plumage of *P. afer*, which is really *P. cinerascens* (V.) in Shelley's book. He had only two of the true *P. afer* for comparison. His *P. intermedius* cannot be separated from *P. cinerascens*, but his *P. parvirostris* from Mashona-land certainly does seem to have a smaller bill and is somewhat purer bluish grey in tint.

No one since Layard's time (*cf.* B. S. Afr. pp. 112, 113, 1867) seems to have recognised that there are two distinct forms of Great Tit in South Africa, a grey species and a brown-backed species. The series brought by Messrs. Seimund and Grant shews that the brown back is constant throughout the year, perhaps a little greyer in the winter plumage, but never blue-grey like that of the other form. The young birds also have brown backs and dull blackish heads. The brown-backed bird is the true *P. afer* of Gmelin, founded on the "Black-breasted Titmouse" of Latham, and the grey bird is *Parus cinerascens* of Vieillot, founded on the *Mésange gris à joue blanche* of Levaillant (Ois. d'Afr. iii. pl. cxxxix. fig. 2, *err. pro fig. 1*).

[This Tit was met with all the year round both on the veldt and the kopjes, but mostly on the former; it was not very common. It was generally seen in little parties, in company with other small birds. We found a nest with young, but they were destroyed by some predaceous beast.]

89. ANTHOSCOPUS MINUTUS. (Pl. VIII. fig. 1.)

Anthoscopus capensis (Gm.); Sharpe, ed. Layard, pp. 327, 804 (1875-84), pt.

Ægithalus capensis, pt., Stark, Faun. S. Afr., Birds, i. p. 310 (1900); Shelley, B. Afr. ii. p. 246 (1900); Sharpe, Bull. B. O. C. xiii. p. 59 (1903).

Anthoscopus minutus Sharpe, Hand-l. B. iv. p. 340 (1903).

a, b. ♂ ♀ ad. Deelfontein, Aug. 9, 1902.

c, d. ♂; *e.* ♀ ad. „ Sept. 3-8, 1902.

The specific name *capensis* dates from Gmelin (S. N. i. p. 1011), whose *Parus capensis* is founded on the "Petite Mésange du Cap de Bonne Espérance" of Sommerat (Voy. Indes, ii. p. 206, pl. 115). It is difficult to understand how the plate could ever have been associated with *Anthoscopus capensis*, auct. The bird is described and figured as ashy grey with white edgings to the wing-feathers and the tail white below. If the plate really represents any actual species, it comes nearest to *Stenostira scita*, but it is a figure which is unrecognisable and the name *capensis* should be dropped.

The next figure of a Cape Penduline Tit is the "Figuier Becque-Fleur" in Levaillant's 'Oiseaux d'Afrique,' iii. pl. 134. figs. 1, 2. The upper figure in Levaillant's plate is copied by Nodder in Shaw's 'Naturalist's Miscellany' (vol. xxiii. pl. 997), and Shaw calls the bird, whatever it may be, *Sylvia minuta*. Levaillant describes his bird as being above grey slightly shaded with greenish, and below as having the throat whitish, with the fore-neck, breast, and remainder of the under surface very faint yellow (*un jaune très-foible*). This is the *Sylvia minuta* of Shaw. Levaillant's locality for his "Figuier" was near Oliphant's River, and this seems to be the species of which several specimens have been recently sent to the British Museum from Deelfontein. We have also in the Museum specimens from Port Elizabeth and Kingwilliams-town, so that this would appear to be the Penduline Tit of the Cape Colony, whereas the other species, *Anthoscopus capensis* auct. (but not of Gmelin), occurs from Potchefstroom and Rustenburg in the Eastern Transvaal to Mashona-land and Damara-land, from all of which places the Museum has specimens.

Of the names given by Dr. Gadow in his synonymy of *Ægithalus capensis*, the earliest (*Parus capensis*) is untenable, as shown above.

Sylvia minuta of Shaw is founded on Levaillant's plate, as is also *Parus fuscus* of Vieillot (N. Dict. d'Hist. Nat. xx. p. 309). This name could never be adopted, as the head, throat, and under parts are described as "noirs"!

Ægithalus smithi was named by Jardine and Selby in October, 1831, from a specimen procured by Sir (then Dr.) Andrew Smith. The example in the British Museum is doubtless the actual type of *Æ. smithi*, and both the specimen and the figure shew that this is the sulphur-breasted species, which can therefore be called *Anthoscopus smithi* (Pl. VIII. fig. 2). This is the *Ægithalus capensis* of Swainson (Classif. B. ii. p. 246, 1837), who refers to the plate published by Jardine and Selby. *Gryllivora capensis* of Swainson, quoted by Dr. Gadow in his synonymy, is a Saxicoline bird. *A. pensilis* Hartl. (ex Licht.) is a *nomen nudum*.

The two species may be diagnosed as follows:—

- a. Breast darker and dull ochreous; upper surface dark ashy, dark olivaceous on the rump and upper tail-coverts; on the crown a slight indication of dusky bases to the feathers *minutus*
- b. Breast light sulphur-yellow, slightly darkening in older birds, but always distinctly yellow; light grey on the head, verging gradually into light olive-greenish, becoming more saffron-yellow on the rump and upper tail-coverts *smithi*.

[A few seen at different times, going in small parties through the tall bush on the veldt. The nest is well known, and is made from the cotton-seed-pods of the Karoo bush; it is hung in very exposed situations.]

90. ZOSTEROPS SUNDEVALLI.

Zosterops pallida (nec Swains.); Sharpe, ed. Layard, pp. 324, 824 (1875-84); id. Cat. B. ix. p. 160 (1884); Stark, Faun. S. Afr., Birds, i. p. 302 (1900); Shelley, B. Africa, ii. p. 187, pl. vii. fig. 2 (1900).

Zosterops sundevalli Hartl.; Finsch, Tierr., Lief. 15, p. 12 (1901).

a, b. ♂ ad. Deelfontein, Aug. 13, 1902.

If Swainson's name of *Z. pallida* is not to be employed for this species, and the description does not agree with it very well, then we must adopt that of *Z. sundevalli*, as set forth by Dr. Finsch.

91. NECTARINIA FAMOSA.

Nectarinia famosa (L.); Sharpe, ed. Layard, pp. 306, 830 (1875-84); Gadow, Cat. B. ix. p. 5 (1884); Shelley, B. Africa, ii. p. 19 (1900); Stark, Faun. S. Afr., Birds, i. p. 276 (1900).

a. ♂ ad. Deelfontein, July 31, 1902.

b, c, d. ♂ ad.; e, f. ♀ ad. Deelfontein, Aug. 2-13, 1902.

[This Sun-bird has a very quick flight. It was fairly common in the month of August, being found among the dog-wood bushes. It feeds on small insects up to the size of a house-fly.]

92. CINNYRIS FUSCA.

Cinnyris fusca (V.); Sharpe, ed. Layard, pp. 317, 832 (1875-84); Gadow, Cat. B. ix. p. 75 (1884); Stark, Faun. S. Afr., Birds, i. p. 290 (1900).

Elaocerthia fusca Shelley, B. Africa, ii. p. 115 (1900).

a. ♂ imm.; b. ♂ juv. Deelfontein, Feb. 10-28, 1901.

c. ♂ imm.; d. ♀ ad. „ March 1-4, 1902.

e-h. ♂ ad. et imm.; i. ♀ ad. Deelfontein, May 20-31, 1902.

k-r. ♂ ad. et imm.; s. ♀ ad. Deelfontein, Aug. 2-13, 1902.

t. ♂ ad. Deelfontein, Oct. 8, 1902.

The young male, shot by Seimund with a catapult in February 1901, resembles the adult female, but is altogether more tinged with yellow on the head, cheeks, and under surface of the body. During the first moult of the young males in February and March, it would seem that the throat and centre of the body are the first parts to assume the adult plumage, and the variation in the orange or scarlet pectoral tufts is very marked. If there were a non-breeding dress in this species, we should expect to find it in specimens killed in May, which is the autumn season in South Africa, but we have fully plumaged males emerging from the brown stage, and one young male in the latter plumage, but with a black metallic-glossed throat. In August again the same plumages are met with, and the birds are moulting. It would look, therefore, as if the birds bred indiscriminately at different seasons of the year.

[Fairly common with us; found in the dog-wood bushes.]

93. CINNYRIS CHALYBEA.

Cinnyris chalybeus (L.); Sharpe, ed. Layard, pp. 314, 831 (1875-84); Gadow, Cat. B. ix. p. 37 (1884); Shelley, B. Africa, ii. p. 76 (1900); Stark, Faun. S. Afr., Birds, i. p. 284 (1900).

a. ♂ imm. Deelfontein, Jan. 23, 1901.

b. ♀ ad. „ Feb. 28, 1902.

c, d. ♂ ad. „ March 23, 25, 1902.

- e-h.* ♂ ad. Deelfontein, May 20-24, 1902.
i. ♂ ad. „ Aug. 13, 1902.
k. ♂ ad. „ Sept. 22, 1902.
l. ♂ ad. „ Oct. 10, 1902.

This interesting series seems to prove that *C. chalybea* has no distinct non-breeding plumage, as the October specimen would be in breeding-dress, and after the nesting-season we find the bird in full plumage again in March, and this perfect livery is met with throughout May and up to August.

Young males commence with a hen-like plumage, as proved by one shot by Capt. Shelley himself in January at Ceres in Cape Colony. In February they begin to moult, and are full-plumaged in March. There are apparently more broods than one in the year, as a September bird is also moulting and emerging from the brown plumage into that of the adult, the scarlet band being paler than in most of the adults, so that it is evident that the young birds, after their first moult, are not so brightly coloured.

[This bird is very common, and is found here nearly all the year round, being especially fond of frequenting the dog-wood bushes, both on the kopjes and on the veldt.]

94. VIDUA PRINCIPALIS.

Vidua principalis L.; Sharpe, ed. Layard, pp. 453, 848 (1875-84); id. Cat. B. xiii. p. 203 (1890); Stark, Faun. S. Afr., Birds, i. p. 145 (1900).

- a.* ♂ ad. Deelfontein, May 30, 1902.

95. PYROMELÆNA ORYX.

Pyromelana oryx (L.); Sharpe, ed. Layard's B. S. Afr. pp. 462, 849 (1884); id. Cat. B. xiii. p. 231 (1890); Stark, Faun. S. Afr., Birds, i. p. 126 (1900).

- a.* ♀ ad. Deelfontein, July 3, 1902.
b, c. ♂ ad. „ Nov. 19, 1902.

The eggs in all the clutches are light blue, and are not unlike those of our English Hedge-Sparrow. Axis 0·75-0·85 inch, diam. 0·5-0·6. The nests were placed in the reeds over water.

[This Bishop-bird was not common and was very local, being generally found near reed-beds and wheat-fields. It seems to finish its nest after the first egg has been laid, as this could always be seen through the nest; but when the full complement of three or four eggs had been deposited it was impossible to see them, the lining of the nest having been completed.]

96. *HYPHANTORNIS VELATUS.*

Hyphantornis velatus (V.); Sharpe, ed. Layard, pp. 439, 847 (1875-84); id. Cat. B. xiii. p. 464 (1890); Stark, Faun. S. Afr., Birds, i. p. 58 (1900).

a, b. ♂ ad.; *c, d.* ♂ hiem. Deelfontein, March 1, 2, 25, 1902.

e-g. ♂ hiem.; *h-m.* ♀ ad. Deelfontein, April 11-25, 1902.

n. ♂ hiem. Deelfontein, June 13, 1902.

o, p. ♂ hiem. „ July 20, 1902.

q-s. ♂ hiem.; *t-U.* ♂ æstiv. Deelfontein, Oct. 24-27, 1902.

The birds obtained in October are apparently all males in full breeding-plumage, with the exception of two late individuals procured on the 24th of that month, which are still in winter plumage. By the 1st of March the males are in full moult and are losing their yellow colour. When in winter dress the males and females are almost exactly alike, but the males can generally be distinguished by a tinge of saffron-yellow on the fore-neck. One male bird killed on the 25th of April shews a few black feathers on the face and chin, probably the last remains of the moult of the black face into the winter plumage.

Among the males in full dress in October there are two which have the brown quills of the winter plumage not yet shed. It is evident that in putting on the full nuptial dress the quills are moulted as well as the body-feathers.

The three eggs have the ground-colour greenish blue, thickly spotted and smudged with dull reddish marks, some of the underlying spots being purplish grey, but very indistinct. Axis 0.9 inch, diam. 0.6.

[This Weaver-bird was very common and occurred all the year round. It comes to roost in large numbers in the fruit-groves round the farms, and is very destructive to fruit during the season, so that the farmers destroy all the nests and eggs that come within their ken. The bright yellow breeding-plumage is not assumed by a complete moult all over the body, but by a gradual change of colour in the feathers, some of the quills and plumes of the head being shed. The nests are mostly placed on willow-trees overhanging the dams, some within a few feet of the water and others at a height of twenty feet, and we have also found nests built on reeds.]

The colour of the eye is brighter red in birds kept in captivity than in those shot in a wild state.]

97. *ESTRILDA ASTRILDA*.

Estrilda astrilda (L.); Sharpe, ed. Layard, pp. 470, 849 (1875-84); id. Cat. B. xiii. p. 391 (1890); Stark, Faun. S. Afr., Birds, i. p. 98 (1900).

<i>a, b.</i> ♂ ad.	Deelfontein,	Feb. 11-23,	1902.
<i>c.</i> ♀ ad.	„	March 2,	1902.
<i>d.</i> ♂ ad.	„	May 20,	1902.
<i>e.</i> ♂ ; <i>f, g.</i> ♀ ad.	„	Aug. 5-13,	1902.
<i>h.</i> ♀ ad.	„	Nov. 18,	1902. With nest and five eggs.

These examples seem to be typical *E. astrilda*, but the female shot from the nest is so pale as to be scarcely distinguishable from *Damara specimens* (*E. damarensis* Reichenow), which otherwise seems to me to belong to a separable form. In the case of the female bird in the present collection, I would suggest that the paleness of the plumage is due to wear and tear. A nest with five eggs was found in long grass at the bottom of a thorn-bush. The eggs were pure white. Axis 0·55 inch, diam. 0·45.

[Very common, and always found in flocks, even during the nesting-season, but most likely these latter companies consisted of non-breeding birds. The pair always sit very close to the nest, and even if shot at and missed only go a short distance away.]

98. *AMADINA ERYTHROCEPHALA*.

Amadina erythrocephala (Linn.); Sharpe, ed. Layard, pp. 467, 849 (1875-84); id. Cat. B. xiii. p. 290 (1890); Stark, Faun. S. Afr., Birds, i. p. 118 (1900).

a, b. ♂ ad. Deelfontein, May 15, 1903.

c-e. ♂ ad. et imm.; *f-h.* ♀ ad. et imm. Deelfontein, July 3, 1903.

Young males resemble the old females, but have more of a ruddy tinge on the head, and the white tips to the wing-feathers are larger, with a more distinct subterminal line of black. The sides of the face and upper throat are dull brick-red, and the bars on the breast are thickly distributed right up to the red colour on the throat, with no intervening shade of ashy on the lower throat.

[Very local and by no means plentiful. It generally occupies an old Sparrow's nest which it re-lines. We often used to catch the birds at night by placing a hand over the entrance of the nest. The eggs were generally three in number.]

99. *SERINUS FLAVIVENTRIS*.

Crithagra flaviventris (Sw.); Sharpe, ed. Layard, p. 485 (1875-84).

Crithagra butyracea Sharpe, ed. Layard, pp. 487, 850 (1875-84).

Serinus flaviventris (Sw.); Sharpe, Cat. B. xii. p. 353 (1887); Stark, Faun. S. Afr., Birds, i. p. 170 (1900); Shelley, B. Afr. iii. p. 199 (1902).

a. ♂ imm. Deelfontein, March 5, 1902.

b. ♂ ad. „ March 10, 1902.

c. ♂ imm. „ April 30, 1902.

d. ♂ ad. „ May 23, 1902.

e, f. ♂ ♀ ad. „ June 14, 1902.

g, h. ♂ ad.; *i, k.* ♀ ad. Deelfontein, Aug. 7, 1902.

l. ♀ ad. Deelfontein, Nov. 4, 1902.

Young males in their first full yellow plumage are rather smaller than the adult birds, and may be easily recognised by the dusky streaks on the chest and flanks. These

features I did not record in the 'Catalogue.' A young female after the first moult, in winter plumage, is much more isabelline on the under surface, and verges towards a tawny shade on the lower flanks.

The four eggs are bluish white with a few scattered spots and short irregular lines of black, mostly at the larger end. Axis 0·6 inch, diam. 0·55.

[Very common, generally seen in small parties of five or six, even during the nesting-season. They may be observed drinking at the small springs on the kopjes at all hours of the day. The nest is generally built on the top of a veldt bush; it is lined with the wool from the seeds of the Karoo bush.]

100. SERINUS ALBIGULARIS.

Crithagra albigularis (Smith); Sharpe, ed. Layard, p. 485 (1875-84).

Serinus albigularis Sharpe, Cat. B. xii. p. 360 (1890); Stark, Faun. S. Afr., Birds, i. p. 174 (1900); Shelley, B. Afr. iii. p. 223 (1902).

a. ♂ juv. Deelfontein, Feb. 1, 1901.

b. ♀ ad. „ April 1, 1902.

c, d, e. ♂ ad. „ May 15, 31, 1902.

f. ♂ ad.; g, h. ♀ ad. Deelfontein, Aug. 2, 13, 22, 1902.

My remark (Cat. B. xii. p. 360) as to the spots on the throat being a sign of the female bird goes for nothing; in fact, there are more distinct spots in the male than in the female. A young male is much more broadly and distinctly streaked on the upper surface, and has the under surface more isabelline, with dusky brown streaks on the chest and sides.

101. PASSER ARCUATUS.

Passer arcuatus (Gm.); Sharpe, ed. Layard, pp. 479, 850 (1875-84); id. Cat. B. xii. p. 333 (1890); Stark, Faun. S. Afr., Birds, i. p. 160 (1900); Shelley, B. Afr. iii. p. 248 (1902).

a, b. pull.; c. ♂ juv. Deelfontein, Nov. 8, 22, 1902.

d. ♀ ad.; e. ♂ juv.; f, g. ♂ ad. Deelfontein, Jan. 24, 27, 1901.

h. ♂ imm.; *i.* ♀ ad. Deelfontein, Feb. 3, 1901.

k. ♂ ad. Deelfontein, Feb. 12, 1902.

l. ♂ juv.; *m-o.* ♂ ad.; *p-s.* ♀ ad. Deelfontein, March 1-28, 1902.

t. ♂ ad. Deelfontein, April 11, 1902.

u, v. ♂ ♀ ad. ,, May 15, 1902.

The moult takes place in January and February, and the new winter-plumage is shaded over by the ashy-brown edges to the feathers, which seem to be cast, after the manner of Sparrows, on the approach of the nesting-season. Nestlings were obtained in November, January, and March. Between the nestling males and females there is very little difference at first, but the darker throat of the male soon becomes apparent, and the rufous colour is a little duller.

In the Deelfontein series the adult females have the head ashy grey, not "blackish" as I have stated in the 'Catalogue'; but there are some specimens in the Museum which have dusky crowns, and it is just possible that the birds are darker in the breeding-season and moult into a greyer and more mealy plumage in the winter. Unfortunately we have no adult female in breeding-plumage in the Deelfontein collection.

The collectors brought home ten clutches of eggs of this Sparrow, which go through all the usual variations of those of the genus *Passer*.

[The "Mossie" is very common, and is found in large numbers round the farms, especially at evening-time. Young birds are found as early as October, and large quantities of young birds and eggs are destroyed by the Boers, as the Sparrows play havoc with the fruit and cereal crops. Their habits are like those of the English Sparrow, and the nest, which is very large, is built of every kind of rubbish, and is to be found not only on houses, but in trees and bushes. The eggs are generally two or three, but we found as many as six.]

102. ALARIO ALARIO.

Alario alario (L.); Bp. Consp. i. p. 519; Sharpe, ed.

Layard, p. 474 (1875-84), pt. ; id. Cat. B. xii. p. 347 (1890) ; Stark, Faun. S. Afr., Birds, i. p. 179 (1900).

Serinus alario Shelley, B. Afr. iii. p. 213 (1902).

a. ♂ juv. Deelfontein, Feb. 15, 1902.

b-i. ♂ ad. et imm. ; k-q. ♀ ad. et imm. Deelfontein, March 1, 1902.

r. ♂ ad. Deelfontein, April 11, 1902.

s. ♂ ad. „ June 14, 1902.

I expressed the idea in the 'Catalogue of Birds' (*l. c.*) that black-breasted males with the white throat might be winter-plumaged individuals, but I am now inclined to modify my opinion, for the series brought by Messrs. Seimund and Grant contains adult birds in winter plumage shot in April and June, and these have perfectly black throats and chests. The only specimen of the white-throated (supposed winter-plumaged) birds that bears a date is one shot by Andersson in June, so that the notion that the white throat and white eyebrow are signs of winter dress must be erroneous, and I am driven to the conclusion that there are two species, one with a black head and throat and no white eyebrow, and the other with a white throat and eyebrow, which I have called *Alario leucoloma* (Bull. B. O. C. xiii. p. 80 ; type in Brit. Mus. ex Great Namaqualand: *C. J. Andersson*).

This would be quite clear to me were it not for the presence, in the Deelfontein series procured in March, of a single bird with a white chin and white eyebrow, which I cannot account for, unless there is some crossing of the two forms. Seimund tells me that he saw only two white-browed birds during the whole of his stay in South Africa. I then thought that the males in their second year might have a white throat before getting a perfectly black one ; but nestling males are moulting directly into the black throat of the adult male, so there is evidently some explanation yet required concerning these white-throated birds.

Both males and females are streaked when young, and the female moults into the plumage of the adult bird, but more

than one of the hens has the throat hoary blackish concealed by the brown shade which pervades the under parts.

[Very common with us and found everywhere, both on the veldt and on the kopjes. It is generally seen in small flocks of five or six individuals even in the breeding-season, and is constantly uttering a twittering note when flying. The nest is found at the base of the kopjes, and is generally placed on the top of a small bush, and lined with wool from Karoo-bush seeds.]

103. *FRINGILLARIA MEDIA*, subsp. nov.

Fringillaria capensis (pt., nec L.); Sharpe, ed. Layard, pp. 489, 851 (1875-84); id. Cat. B. xii. p. 565 (1888); Stark, Faun. S. Afr., Birds, i. p. 187 (1900); Shelley, B. Afr. iii. p. 156 (1902).

a, b. ♂ ad.; *c.* ♀ ad. Deelfontein, Jan. 8, 1901.

d, e. ♂ ad. Deelfontein, Feb. 28, 1902. Bill slate-coloured; feet dark horn-coloured; iris hazel.

f, g. ♂ ad.; *h.* ♀ ad. Deelfontein, March 2, 13, 24, 1902.

i. ♂ ad. Deelfontein, April 26, 1902.

k. ♀ ad. „ May 20, 1902. Bill and feet black; iris dark hazel.

l. ♂ ad. „ Oct. 25, 1902.

m. ♀ ad. „ Nov. 19, 1902. With nest.

The series collected by our two naturalists is very interesting, as it seems to me that the specimens do not belong absolutely to *F. capensis* with its white throat, white eyebrow and facial streak, and white under tail-coverts, or to *F. reidi* of Shelley (B. Africa, iii. p. 158) from Natal and Eastern Transvaal, where the throat, eyebrow, facial streak, and under surface of the body are sandy buff and the chest more ashy. The Deelfontein birds are intermediate: the throat and eyebrow are not white as in *F. capensis*, but are light sandy buff, not so deep in tint as in *F. reidi*; the same applies to the under tail-coverts. I think, therefore, that we may apply the name of *F. media* to this intermediate form.

F. capensis.—Cape Town, N. to Great Namaqua-land (Tjjobis).

F. media.—Mossel Bay, Paarl (*G. E. Shelley*); Deelfontein (*Seimund and Grant*).

F. reidi.—Natal to Transvaal.

As to Potchefstroom specimens, it is very difficult to decide whether they are *F. media* or *F. reidi*.

The three eggs are of a pale greenish blue, plentifully sprinkled with reddish brown and pale purplish grey, seldom forming a small blotch. Axis 0·75 inch, diam. 0·6.

[This Bunting is found all the year round, and is very common, but does not go in flocks. Its food consists of seeds and insects. The nest is built in the top of a clump of coarse grass on the veldt or on a kopje; it is never more than a foot or a foot and a half from the ground. The eggs are three or four in number.]

104. FRINGILLARIA IMPETUANI.

Fringillaria impetuanii Sharpe, ed. Layard, pp. 489, 851 (1875–84); id. Cat. B. xii. p. 563 (1900); Stark, Faun. S. Afr., Birds, i. p. 190 (1900); Shelley, B. Afr. iii. p. 159, pl. xxiii. fig. 2 (1902).

a. ad. Deelfontein, Jan. 10, 1901. Iris hazel.

b. ♂ ad. „ Jan. 25, 1901.

c. ♂ ad. „ April 1901.

d. ♂ ad. „ Feb. 17, 1902.

e-i. ♂ ♀ ad. „ March 2–13, 1902.

k, l. ♂ ♀ ad. „ April 3, 4, 1902.

m. ad. „ April 25, 1902.

n, o. ♂ ♀ ad. „ Oct. 24, 1902.

There seems to be very little variation in the colour of this species at different seasons of the year, as I have already remarked in the ‘Catalogue.’ The moult apparently takes place in March, and the old birds may be distinguished from the young by an indication of a dusky spot on the lower throat. In the breeding-plumage the ear-coverts become decidedly more rufescent.

[The Little Brown Bunting is very common and is found with us all the year; it generally occurs in small parties of five or six. The food consists of seeds and insects. The nest is

placed under a stone on the side of a kopje, and the eggs are from two to four. This species does fairly well in confinement, but seems to be drinking nearly all day.]

105. *MOTACILLA CAPENSIS*.

Motacilla capensis Linn.; Sharpe, ed. Layard, B. S. Afr. pp. 547, 853 (1875-84); id. Cat. B. x. p. 493 (1885); Stark, Faun. S. Afr., Birds, i. p. 259 (1900); Shelley, B. Afr. ii. p. 277 (1900).

a, b. ♀ ad.; *c.* ♀ juv. Deelfontein, Jan. 10-27, 1901.

d. ♀. Deelfontein, Feb. 11, 1901.

e, f, g. ♂ ad.; *h, i.* ♀ ad. Deelfontein, Feb. 6-28, 1902. Bill and feet black; iris hazel.

k, l, m. ♂ ad.; *n-r.* ♀ ad. Deelfontein, March 2-31, 1902.

s. ♂ ad. Deelfontein, Aug. 24, 1902.

t. ♀ ad. Deelfontein, Nov. 4, 1902. With nest and three eggs.

As will be seen by the series, this Wagtail nests in November, a hen bird having been shot off the eggs. In February the birds moult, this stage being completed in March, and it is curious to note that the narrow band across the end of the greater wing-coverts is sometimes very distinct and sometimes scarcely traceable, the white terminal edgings being often obsolete. In a few individuals the median coverts also shew a light bar at their ends, and I am unable to trace any evidence that these are necessarily older birds. These wing-bands become very much abraded in the breeding-season. Two clutches of eggs were obtained, of an extraordinary colour for a Pied Wagtail. They are uniform stone-colour, with a slight indication of drab mottling. Axis 0·8 inch, diam. 0·6.

[The Wagtail was a very common bird throughout the year, being found in pairs or small parties. It is a very tame little bird, and will approach a person within a few feet. The nest is built in a "sluit"-wall or in the bank of a dam: eggs four in number.]

106. *ANTHUS CRENATUS*.

Anthus crenatus Finsch & Hartl.; Sharpe, ed. Layard,

p. 543 (1884); id. Cat. B. x. p. 541 (1885); Stark, Faun. S. Afr., Birds, i. p. 245 (1900); Shelley, B. Afr. ii. p. 298, pl. xiii. fig. 2 (1900).

a. ♀ ad. Deelfontein, March 14, 1902.

b, c, d. ♂ ad. „ May 19–31, 1902.

e. ♂; f, g. ♀ ad. „ June 2–13, 1902.

Apparently a winter visitor, as all the specimens are in winter plumage, that killed in March having nearly completed its moult.

[This we called the “Kopje Lark.” It was not common, but was found on flat-topped kopjes from March to June, frequenting the rough ground. It was fairly tame.]

107. ANTHUS VAALENSIS.

Anthus pyrrhonotus, pt. (nec V.); Sharpe, Cat. B. x. p. 555 (1885); Stark, Faun. S. Afr., Birds, i. p. 250 (1900).

Anthus vaalensis Shelley, B. Afr. ii. p. 311 (1900).

a. ♂ ad. Deelfontein, Sept. 24, 1902.

108. ANTHUS NICHOLSONI.

Anthus nicholsoni Sharpe, ed. Layard, p. 536 (1884); id. Cat. B. x. p. 553 (1885); Stark, Faun. S. Afr., Birds, i. p. 249 (1900); Shelley, B. Afr. ii. p. 312 (1900).

a. ♀ ad. Deelfontein, Jan. 8, 1901.

b. ♂ ad. „ March 23, 1902. Bill, upper mandible dark brown, lower mandible and feet pale horn-brown; iris hazel.

c. ♂; d, e. ♀ ad. Deelfontein, March 14–23, 1902.

f. ♂ ad. „ April 27, 1902.

g, h. ♂ ad.; i. ♀ ad. „ May 5–30, 1902.

k. ♂ ad. „ June 2, 1902.

The birds procured in March are all moulting and shew considerable difference in the pattern of the penultimate feather, but the blackish shaft-streak remains a striking characteristic of the species.

[This species arrives at Deelfontein in March, though we shot one in January. It was fairly common, and was generally found at the bases of the kopjes. Some were caught in the gins set for wild cats.]

109. ANTHUS RUFULUS.

Anthus caffer Sundev.; Sharpe, ed. Layard, p. 434 (1884).

Anthus rufulus V.; Sharpe, Cat. B. x. p. 574 (1885); Stark, Faun. S. Afr., Birds, i. p. 251 (1900); Shelley, B. Afr. ii. p. 319 (1900).

a. ♀ juv. Deelfontein, Feb. 12, 1902.

b, c. ♂ ad.; d. ♀ ad. Deelfontein, March 10, 1902.

e. ♂; f, g. ♀ ad. „ April 3, 1902.

h. ♀ ad. „ July 3, 1902.

All the birds procured in March and April have more or less completed their moult, and some curious variation is exhibited as regards the amount of white on the penultimate tail-feather. It is evident that in the freshly moulted state some specimens, probably young birds of the previous season, have the penultimate tail-feather almost entirely black, with a wedge-shaped mark of white near the end. This gradually increases in extent, but very irregularly, until at last the white is nearly as much developed as on the outer feather, shewing merely a long wedge-shaped mark of brown on the inner web. A similar variation takes place in Malayan specimens (*cf.* Sharpe, Cat. B. x. p. 577).

110. CERTHILAUDA ALBOFASCIATA.

Certhilauda rufula (nec V.); Sharpe, ed. Layard, pp. 496, 851 (1875-84); id. Cat. B. xiii. p. 515 (1890); Stark, Faun. S. Afr., Birds, i. p. 234 (1900).

Certhilauda albofasciata Lafr.; Shelley, B. Afr. iii. p. 22 (1902).

a, b. ♂ ad.; ♀ pull. Deelfontein, Jan. 29, 1901.

c, d, e. ♂; f, g. ♂ ♀ juv. „ Feb. 3-12, 1902.

h, i. ♂ ad. „ March 23-26, 1902.

k, l. ♂ ♀ ad. „ April 3, 4, 1902.

m, n. ♂ ♀ ad. „ May 15, 1902.

o-r. ♂ ad.; s, t. ♀ ad. „ Sept. 28, 30, 1902.

Iris greyish hazel.

u. ♂ ad. „ Nov. 11, 1902.

From the spotted nestling stage the young Lark moults into a winter plumage exactly like that of the adult, and carries

a scalloped appearance on the back, most of the feathers being margined with white or isabelline. These edgings disappear in the breeding-season, being abraded or shed, and the upper surface is then much more streaked in appearance.

[This Lark was very common all the year round, and even in the breeding-season was met with in parties of from five to seven. It is very tame, and generally utters a call when it rises to fly.]

111. ALÆMON NIVOSA.

Alæmon nivosus (Swains.) ; Sharpe, ed. Layard, p. 501 (1875-84) ; id. Cat. B. xiii. p. 522 (1890) ; Stark, Faun. S. Afr., Birds, i. p. 230 (1900).

Alæmon semitorquatus (nec Smith) ; Sharpe, Bull. B. O. C. xii. p. 2.

Mirafrans nivosus Shelley, B. Africa, iii. p. 33 (1902).

a. ♂ juv. Deelfontein, Jan. 23, 1901.

b. ♀ juv. „ March 7, 1901.

c, d. ♂ ♀ ad. „ Feb. 28, 1902.

Young birds, it will be noticed, were procured in January and March. The old birds, killed in February, are moulting into a rufescent winter plumage.

112. ALÆMON SUBCORONATA.

Certhilauda subcoronata (Smith) ; Layard, B. S. Afr. 1867, p. 499.

Alæmon semitorquatus, pt. (nec Smith) ; Sharpe, ed. Layard, pp. 499, 851 (1875-84) ; id. Cat. B. xiii. p. 521 (1890) ; Stark, Faun. S. Afr., Birds, i. p. 228 (1900) ; Shelley, B. Afr. iii. p. 25 (1902).

a, b. ♂ ♀ imm. Deelfontein, Feb. 10, 1901.

c. ♂ ad. „ Feb. 7, 1902.

d. ♀ juv. „ March 7, 1901.

e-k. ♂ ; l, m. ♀ ad. „ March 5-31, 1902.

n-r. ♂ ; s, t. ♀ ad. Deelfontein, May 4-30, 1902. Bill black, lower mandible slate-coloured at base ; feet slate-coloured, nails black ; iris light hazel.

u, v. ♂ ; w. ♀ ad. Deelfontein, Aug. 2, 24, 1902.

x. ♂ ad. „ Sept. 5, 1902.

It will be noticed that this set of skins was procured between February and September, and that none were collected between October and January, when the birds would be breeding. There is, however, no appreciable difference between specimens killed in March and August.

The fine series of specimens obtained by Messrs. Seimund and Grant causes me to modify my opinion with regard to *Alamon semitorquata*. They have been procured throughout the different months of the year and present a wonderful uniformity of plumage, so that the idea that the Deelfontein specimens could represent the winter dress of the eastern red form (*A. semitorquata* of Smith) must be abandoned.

There seem to be five races of these Larks. The one from the western end of the Cape Colony is *Certhilauda subcoronata* Smith. The type seems not to have come to the British Museum, but the figure in the 'Illustrations' (plate xc. fig. 2) leaves no doubt as to the species, which is the Deelfontein bird. It is of a dark vinous colour, with broad blackish stripes on the head and back. The throat is white, with a few triangular blackish spots on the lower part, which spots become much larger on the fore-neck and chest, while the breast and flanks have very distinct linear streaks of blackish.

In Natal and the Transvaal the form of *Alamon* is much more rufous above and more uniform, the stripes on the back being often obsolete and occasionally entirely absent. The throat is buffy whitish and the breast and flanks unstreaked and buffy or vinous in colour. The spots on the fore-neck and chest are fewer in number and consist of light brown triangular marks of small size. This form must bear the name of *A. semitorquata* (Smith).

Then there is a third form from the Orange River, of which the Museum possesses three specimens collected by the late Dr. Bradshaw. This is light rufous above like the foregoing bird, but with narrower and less pronounced blackish shaft-streaks. The spots on the fore-neck and chest are few in number as in *A. semitorquata*, and they are as distinct as in *A. subcoronata*, but there are no blackish streaks on the

flanks. This form holds an intermediate position between the two previous species, and may be called *A. bradshawi*, sp. nov.

There is another very pale vinous form from Damara-land, with a few scanty spots on the fore-neck, and very pale under surface, which is almost white. It is easily distinguished by its pale colour from *A. semitorquata*, and may be called *A. damarensis*, sp. nov.

Lastly, the Benguela bird also seems to be different, having a general resemblance to *A. damarensis* beneath, but with the head ashy brown like the hind-neck and with distinct longitudinal shaft-stripes of blackish brown, whereas in *A. damarensis* the head is pale vinous like the back, and there are scarcely any shaft-streaks. It seems to me to be worthy of a name, and I propose to call it *A. benguelensis*, sp. nov.

[Very common and found all the year round, but never in flocks; it was generally met with at the rocky foot of a kopje, and occurred in pairs. It is called by the Boers "Spring-bok Couster," from its habit of jumping up into the air when feeding.]

113. TEPHROCORYS CINEREA.

Tephrocorys cinerea (Gm.); Sharpe, ed. Layard, pp. 511, 851 (1875-84); id. Cat. B. xiii. p. 561 (1890); Stark, Faun. S. Afr., Birds, i. p. 222 (1900); Shelley, B. Afr. iii. p. 123 (1902).

a, b. ♂; *c, d.* ♀ ad. et imm. Deelfontein, Feb. 12-14, 1902.

e, f. ♂; *g, h, i.* ♀ ad. Deelfontein, March 8, 1902.

k. ♂ ad. Deelfontein, March 23, 1902.

All these specimens are either moulting or have just freshly moulted into winter plumage, when the appearance is very much that of a *Calandrella*: the chest is uniform ashy brown or shews a few streaks on the fore-neck. The chestnut patch on the side of the chest is obscured by ashy brown and the bill is pale. In the breeding-season the bill becomes entirely black.

114. *CALENDULA CRASSIROSTRIS*.

Calendula crassirostris (V.); Sharpe, ed. Layard, p. 513 (1875-84); id. Cat. B. xiii. p. 639 (1890); Stark, Faun. S. Afr., Birds, i. p. 202 (1900); Shelley, B. Afr. iii. p. 115 (1902).

a. ♂ juv. Deelfontein, Feb. 28, 1902. Upper mandible black, lower mandible flesh-coloured; feet bluish white.

b, c. ♂ ♀ ad. Deelfontein, May 15-22, 1902. Iris hazel.

d, e. ♂ ♀ ad. „ Aug. 21, 1902.

f, g. ♂ ♀ ad. „ Sept. 3, 19, 1902.

h. ♂ ad. „ Oct. 29, 1902.

i. ♀ pull. „ Oct. 24, 1902.

A nestling killed towards the end of October has a yellowish abdomen, and the upper surface is prettily spangled with white spots and fringes to the wing-coverts and secondaries. A full-grown young male is moulting into its first winter plumage on the 28th of February.

[This Lark is found here all the year round, and is very common; it is fond of sitting on the tops of black-thorn trees and uttering a short call-note. The nest is built on the veldt, and we found one within a yard of the nest of a Ringed Plover; it was in rather an open spot, and consisted merely of a depression in the ground, about an inch in depth, lined with fine grass.]

115. *MIRAFRA RUFIPILEA*.

Mirafra rufipilea (V.); Sharpe, ed. Layard, p. 517 (1875-84); id. Cat. B. xiii. p. 598 (1890); Stark, Faun. S. Afr., Birds, i. p. 218 (1900); Shelley, B. Afr. iii. p. 16 (1902).

a. ♀ juv. Deelfontein, April 1, 1901.

116. *MIRAFRA NÆVIA*.

Mirafra nævia (Strickl.); Sharpe, ed. Layard, pp. 524, 851 (1875-84); id. Cat. B. xiii. p. 617; Stark, Faun. S. Afr., Birds, i. p. 209 (1900); Shelley, B. Afr. iii. p. 38, pl. xv. fig. 2 (1900).

a. ♀ juv. Deelfontein, May 4, 1902. Iris hazel; feet bluish fleshy; bill horny black, yellowish at gape.

b. ♂ ad. Deelfontein, Nov. 6, 1902.

The specimen in breeding-plumage is very dark and has the spots on the chest very distinct; the bill is also horny blackish throughout. The young bird is full-grown and in good plumage; the date seems somewhat remarkable for it not to have moulted into its adult winter dress.

117. PYRRHULAUDA AUSTRALIS.

Pyrrhulauuda australis (Smith) : Sharpe, ed. Layard, p. 402 (1875-84); id. Cat. B. xiii. p. 651 (1900); Stark, Faun. S. Afr., Birds, i. p. 194 (1900); Shelley, B. Afr. iii. p. 76 (1902).

a-e. ♂ ad. Deelfontein, Feb. 23-28, 1902. Bill bluish white; feet brownish white; iris red.

f, g. ♀ ad. et juv. Deelfontein, Feb. 12, 28, 1902. The old female had the soft parts like those of the males.

h-m. ♂ juv.; *n, o, p.* ♀ ad. Deelfontein, March 23, 1902. Iris rich reddish brown.

q, r. ♂ ad. Deelfontein, May 25, 1902. Bill slaty white; feet dark slate-coloured; iris reddish brown.

s, t. ♂ ad. et juv. Deelfontein, June 14, 15, 1892.

The adult males killed in February seem to be in somewhat worn plumage, but apparently are not moulting. One specimen only has rather broad sandy-rufous edgings to the wing-coverts and secondaries. In May and June the birds are changing into winter-plumage, and the adult males are recognisable by the blacker crown, which is a little obscured by sandy-rufous edgings to the feathers. The young males have streaked heads like the females, but are blacker below, and when the black breast is assumed there are a few remains of hoary-whitish edges to the feathers. Young males at first resemble old females and are streaked or spotted below. One old male shot on the 25th of May has a white nuchal patch!

[These little Finch-Larks were very common all the year round, and occurred in large and small flocks. When the mid-day sun was hottest they hid under the larger bushes of the veldt, but we never discovered one of their nests. They fed on the same small black seed as the Sand-Grouse.]

118. *PYRRHULAUDA VERTICALIS*.

Pyrrhulauda verticalis (Smith); Sharpe, ed. Layard, p. 492 (1875-84); id. Cat. B. xiii. p. 656 (1890); Stark, Faun. S. Afr., Birds, i. p. 195 (1900); Shelley, B. Afr. iii. p. 83 (1902).

a-e. ♂ ad. et imm.; *f.* ♀ ad. Deelfontein, Nov. 11-23, 1902.

g. ♂ ad. Deelfontein, March 10, 1902.

The variation in size of the white spot on the crown is remarkable, and in some specimens it disappears altogether: it is obscured by a shade of brown in all those killed in November, while the March specimen has the vertical spot whiter than the others and has the white margins of the coverts very broad and distinct.

[Very fond of visiting old camping-grounds, where it was fairly common in flocks of from four to six individuals, or more. It fed on the same small black seeds as the Sand-Grouse, and was generally in company with the Red-headed Larks.]

119. *SPREO BICOLOR*.

Spreo bicolor Sharpe, ed. Layard, pp. 429, 816 (1875-84); id. Cat. B. xiii. p. 187 (1890); Stark, Faun. S. Afr., Birds, i. p. 30 (1900); Reichenow, Vög. Afrikas, ii. p. 673 (1903).

a, b, c. ♂; *d, e.* ♀ imm. Deelfontein, Feb. 14-18, 1902.

f. ♂ ad. „ March 5, 1902.

g, h. ♂; *i.* ♀ ad. „ May 15, 1902.

k. ♂; *l, m.* ♀ ad. „ Aug. 9, 1902.

n, o. ♂ ♀. „ Oct. 29, 1902.

p. ♀ ad. „ Nov. 23, 1902.

All the birds killed in February are moulting out of an earthy-brown plumage into the metallic dress. Those obtained in May seem to have just finished their moult, and are rather dull in colour, being apparently young birds.

In October the birds appear to be undergoing another moult, and the hen shot from the nest in December is also moulting out of the brown into the metallic plumage. The egg is of a beautiful blue colour, with a few reddish-brown or ochreous-brown dots. Axis 1.25 inch, diam. 0.9.

[Very common with us all the year, coming in large flocks to roost at the farms; it is also very partial to bamboo-clumps for roosting. It is a very noisy bird. The eggs and young are destroyed by the Boers, who declare that they do great damage to the fruit. They thrive well in captivity, if fed on meat, and we found them an attractive bait for the trapping of lynxes and wild cats. The nest was in the hole of a wall or "slut," and, when first built by the parent birds, was made of green materials and was very damp. Three or four eggs were laid.]

120. *CREATOPHORA CARUNCULATA.*

Dilophus carunculatus (Gm.); Sharpe, ed. Layard, pp. 421, 845 (1875-84); id. Cat. B. xiii. p. 61 (1890); Stark, Faun. S. Afr., Birds, i. p. 23 (1900).

Perissornis carunculatus Oberh.; Reichenow, Vög. Afrikas, ii. p. 670 (1903).

Creatophora carunculata Lesson, Compl. Buff. ed. Lévêque, xx. p. 308 (1847); Richmond, Auk, xix. p. 92.

a, b. ♂ ♀ ad. Deelfontein, Feb. 23, 1902.

c, d, e. ♂. „ March 5, 1902.

f, g. ♂; *h.* ♀ ad. „ May 21, 1902.

i-l. ♂; *m, n.* ♀ ad. „ June 13, 1902.

o, p. ♂ ♀ ad. „ Oct. 29, 1902.

The moult seems to last some time, as specimens killed in February, March, May, and June are all moulting to a greater or less extent. This is probably due to the fact of the bird rearing two broods. Only one adult male with wattles is in the collection; this is the specimen shot on the 29th of October. Young males seem to have the bare part of the orbits and throat yellow as in the old females. One "female" bird procured on the 21st of May shews a white primary-covert, but I think that there has been a mistake in the sexing of this specimen, which seems to be a young male.

[Boer name "Green Spreuw" or "Sprinken Spreuw." These birds are found all the year round. They are like *Spreo bicolor* in habits, and come to roost with them, though not in such large flocks. Their flight, however, is like that of

Sturnus vulgaris. They are not noisy, and are somewhat shy, excepting at roosting-time. The Boers said that they built their nests on the tops of the bushes, but we did not find one.]

121. PYRRHOCHIRA INTENSITINCTA.

Juida fulvipennis Sund. ; Layard, B. S. Afr. p. 173 (1867).

Amydrus caffer (Linn.) : Sharpe, ed. Layard, pp. 430, 846 (1875-84), pt. ; Stark, Faun. S. Afr., Birds, i. p. 28 (1900).

Pyrrhocheira caffer Sharpe, Cat. B. xiii. p. 169 (1890, pt.).

Pyrrhocheira caffer, var. *intensitincta* Reichenow, Vög. Afrikas, ii. p. 697 (1903).

Amydrus nabouroup benguellensis Neum. Orn. MB. 1903, p. 184.

a. ♂ ad. Deelfontein, Jan. 12, 1901.

b, c. ♂ ad. „ March 23-26, 1902. Iris orange-red ; bill and feet black.

d. ♀ ad. „ April 15, 1902.

e. ♂ ad. „ April 23, 1902.

f, g. ♂ ♀ ad. „ May 19, 1902.

h. ♂ ad. „ June 12, 1902.

i, k. ♂ ad. „ Dec. 22, 1902.

The female appears to resemble the male in plumage, but is a little smaller in size. The moult seems to take place from December to April.

I can appreciate the characters of Dr. Reichenow's race *intensitincta*, and all the Deelfontein birds belong to this form, which has a more rufescent tint on the inner aspect of the quills, while in the true *P. caffer* the inner webs of the quills incline to white. Mr. Oscar Neumann's new race *Amydrus nabouroup benguellensis* from Benguela (Orn. MB. 1903, p. 184) seems to me to be absolutely the same as the Damara birds in the Museum collection. I can recognise only two forms.

[The "Rooi-vlerk Spreuw" was fairly common with us and remained throughout the year, but was always very shy, occurring in flocks of from five to twelve individuals. These Starlings used to roost in the krantzies of the kopjes and hills,

coming in the morning and evening to the dams on the veldt to drink. The nest was made of dried grass, and was built in a crack in the rocks or under sloping stones. We never found the eggs, but got one nest with three young birds.]

122. HETEROCORAX CAPENSIS.

Heterocorax capensis (Licht.); Sharpe, Cat. B. iii. p. 12 (1877); id. ed. Layard, pp. 415, 845 (1875-84); Reichenow, Vög. Afrikas, ii. p. 637 (1903).

Corvus capensis Stark, Faun. S. Afr., Birds, i. p. 14 (1900).

a. ♂. Deelfontein, May 25, 1901.

The African Rook was not common; it was very like our European Rook in its ways. It bred in the neighbourhood of Deelfontein and laid two eggs. When taken young, the birds became very tame, and we had two live pets which made great friends with everyone in camp. Boer name "Swart Vogel."]

123. CORVULTUR ALBICOLLIS.

Corvultur albicollis (Lath.); Sharp, ed. Layard, p. 417 (1875-84); id. Cat. B. iii. p. 22 (1877); Stark, Faun. S. Afr., Birds, i. p. 10 (1900); Reichenow, Vög. Afrikas, ii. p. 640 (1903).

a. ♀ ad. Deelfontein, April 14, 1902.

XXV.—*Description of a new Species of Dove of the Genus Haplopelia.* By T. SALVADORI, F.M.Z.S.

WHEN, in 1900, the portion of the 'Bulletin of the Liverpool Museum' containing the interesting Catalogue of the Pigeons in the Derby Museum was issued, I was surprised to find that a specimen stated to be from the interior of Cayenne was attributed to *Haplopelia principalis* Hartl. My surprise was due to the fact that this species had been described by Hartlaub as coming from Prince's Island in the Gulf of Guinea and not from South America.

At my request, Dr. Forbes very kindly sent me the



J.G.Keulemans del.etlith.

Mintern.Bros.imp.

1. ANTHOSCOPIUS MINUTUS. 2. A. SMITHI.